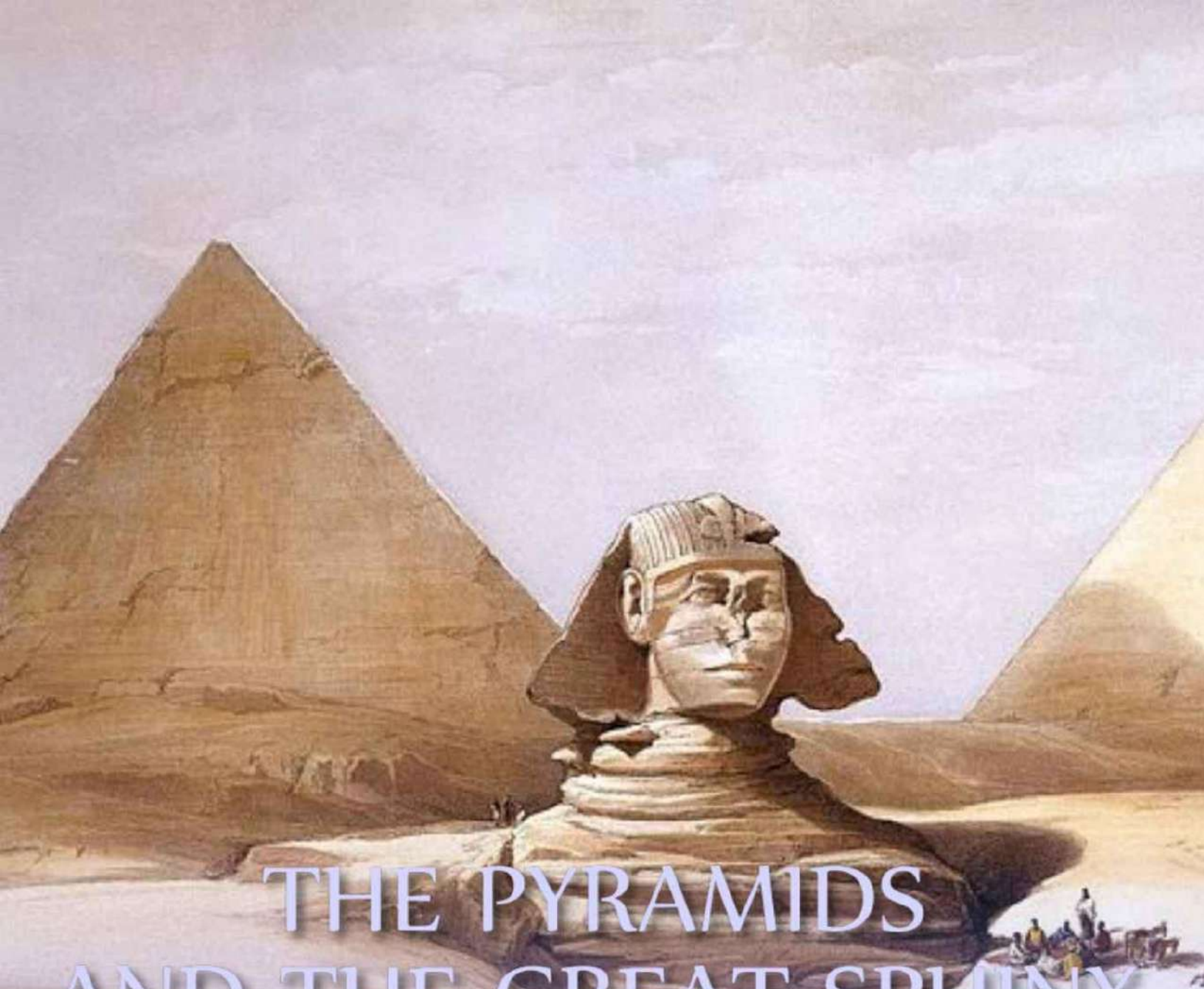
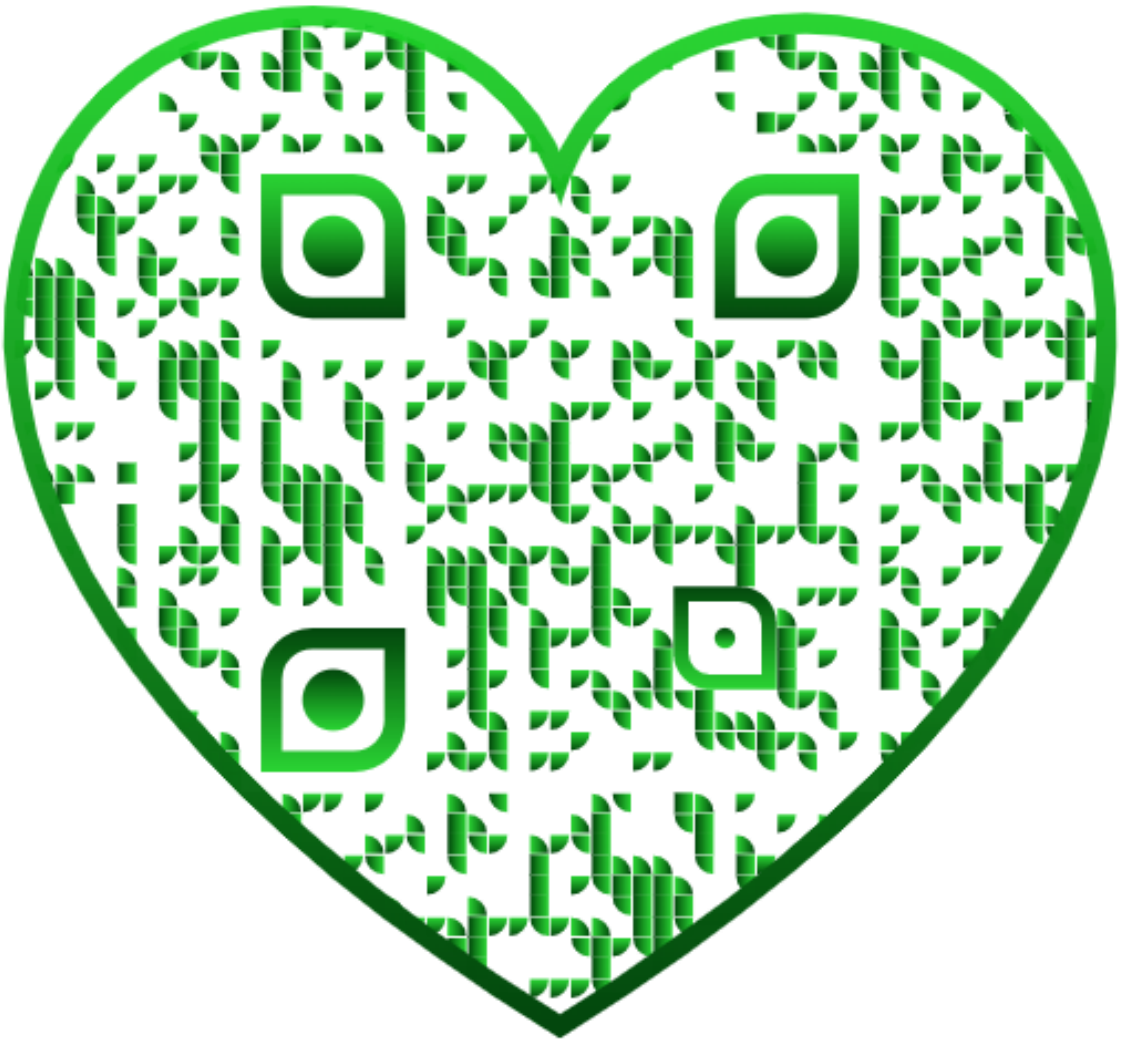


THE PYRAMIDS AND THE GREAT SPHINX OF GIZA

THE HISTORY AND MYSTERIES BEHIND ANCIENT EGYPT'S FAMOUS MONUMENTS

by

CHARLES RIVER EDITORS



The Egyptian Pyramids and the Great Sphinx of Giza: The History and Mysteries Behind Ancient Egypt's Famous Monuments

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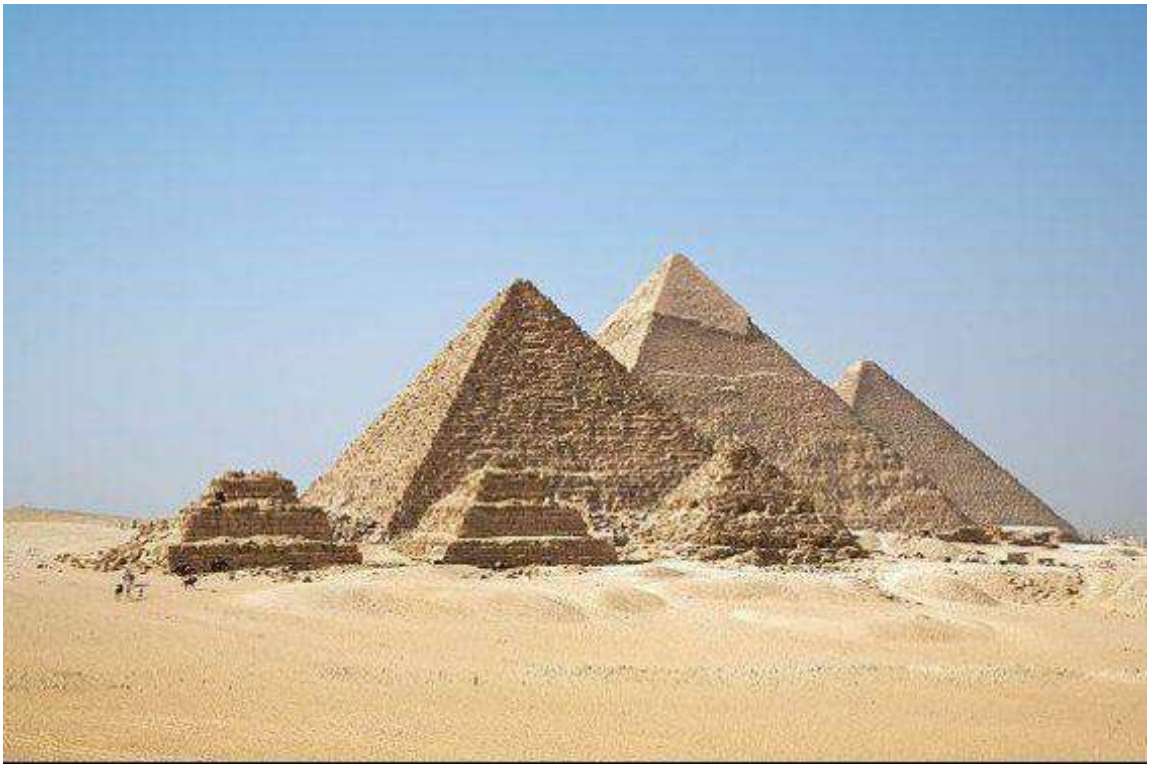


The Pyramids at Giza

Introduction

The Sphinx, with the pyramid of Khafre in the background

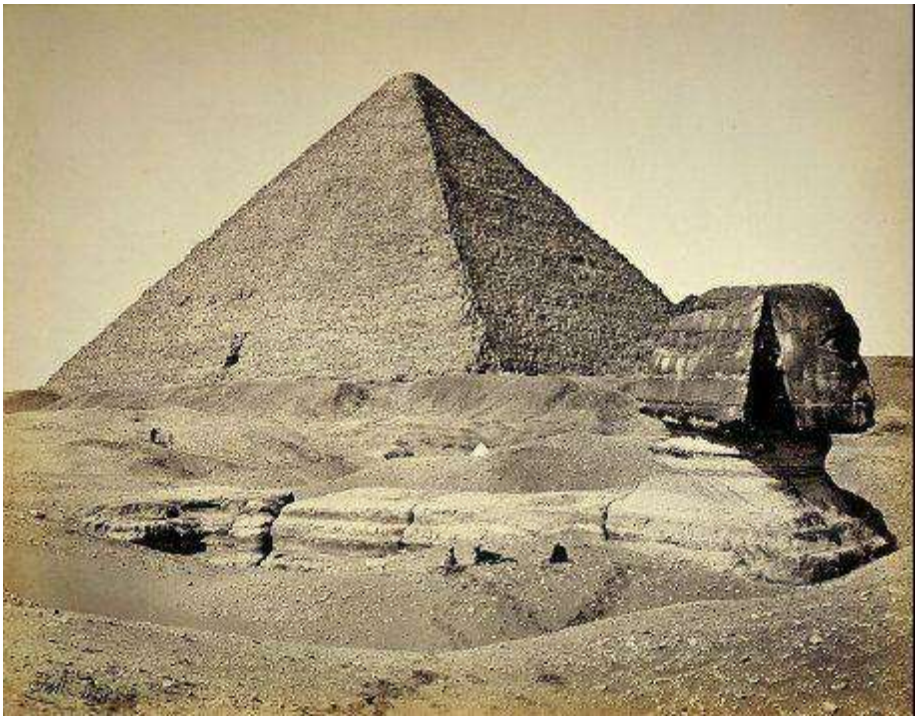
The Egyptian Pyramids

“When we find something new at Giza, we announce it to the world. The Sphinx and the Pyramids are world treasures. We are the guardian's of these treasures, but they belong to the world.” – Zahi Hawass, Egyptologist

The pyramids of Egypt are such recognizable symbols of antiquity that for millennia, people have made assumptions about what they are and why they exist, without full consideration of the various meanings these ancient symbolic structures have had over the centuries. Generations have viewed them as symbols of a lost past, which in turn is often portrayed as a world full of romance and mystery. This verbal meaning has become associated with the structures through the tourism industry, where intrigue obviously boosts ticket sales. In fact, the Egyptian pyramids are so old that they were also drawing tourists even in ancient times. In antiquity, the Great Pyramid of Giza was listed as one of Seven Ancient Wonders of the World, and it is the only one still surviving today.

The age and structural integrity of the pyramids also make them symbols of longevity and power, which is only fitting because those are two purposes the ancient pharaohs who commissioned these works intended them to serve. For the pharaohs, the construction of these large monuments presented an opportunity for them to showcase their influence and become something to be remembered by, both in the society they ruled and in the annals of history that would follow. Even as new dynasties came and went, and even as Egypt was subjected to foreign domination and rulers from across the world, the pyramids have continued to stand as a prominent testament to Ancient Egypt’s glorious past.

This book comprehensively covers the origins, history, mysteries, and theories surrounding the ancient monuments. Along with pictures and a bibliography, you will learn about the pyramids like you never have before, in no time at all.



1858 photo

The Sphinx

“It is the antiquity of the Sphinx which thrills us as we look upon it, for in itself it has no charms. The desert's waves have risen to its breast, as if to wrap the monster in a winding-sheet of gold. The face and head have been mutilated by Moslem fanatics. The mouth, the beauty of whose lips was once admired, is now expressionless. Yet grand in its loneliness, – veiled in the mystery of unnamed ages, – the relic of Egyptian antiquity stands solemn and silent in the presence of the awful desert – symbol of eternity. Here it disputes with Time the empire of the past; forever gazing on and on into a future which will still be distant when we, like all who have preceded us and looked upon its face, have lived our little lives and disappeared.” – John Lawson Stoddard, 1898

One of the oldest and most famous statues of the world, the Great Sphinx at Giza has fascinated people for thousands of years. While the sphinx was a well known mythological creature among various ancient civilizations, the Egyptian statue that is now most famously associated with the creature is full of mysteries that have been endlessly debated throughout the centuries and continue to be hotly contested among scholars.

The famous “Riddle of the Sphinx”, told by Sophocles in his play Oedipus Rex in the 5th century B.C., characterized the sphinx as a clever and powerful creature, and even today young kids learn about the story. But the mysteries of the Egyptian statue were discussed even among the ancient Romans; Pliny the Elder, the famous Roman author and philosopher killed in Pompeii during the eruption of Mount Vesuvius in 79 A.D., wrote in his *Natural Histories* that contemporary Egyptians considered the Sphinx a “divinity” and "that King Harmais was buried in it".

Nearly 2,000 years later, people still wonder about the origins of the statue, but most believe it was constructed around the middle of the 3rd millennium B.C. As anyone who has seen the statue is now aware, it has suffered weatherization damage, and even the sources of the damage has been debated and turned into the stuff of legend, as evidenced by the story of Napoleon’s French soldiers shooting off the Sphinx’s nose. In conjunction with that, there are mysteries over the archaeological history of the statue, including whether the ancient Egyptians themselves attempted to excavate the Sphinx and clear the sands that were beginning to cover it up.

The Great Sphinx at Giza continues to be a source of endless fascination and mystery, but everyone can agree that it is a marvelous and interesting structure. This book comprehensively covers the facts, mysteries, and theories surrounding the ancient statue and the mythological creature the statue was modeled after. Along with pictures and a bibliography, you will learn about the Sphinx like you never have before, in no time at all.

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The Egyptian Pyramids

Chapter 1: The Step Pyramid (2686–2613 B.C.)

The origins of the pyramids, including their chosen shape and design, stretch all the way back to the mythological stories of the ancient Egyptians. As a culture, the Egyptians are known for their obsession with death, so it is ironic that these lavish tombs were inspired instead by a story of creation – the story of birth.[1] In Egyptian mythology, the world was formed from out of the depths of a primal ocean that was both infinite and bereft of life, and these ancient waters parted when the sun rose for the very first time. This origin was something that the Egyptians referred to as the "first occasion". The chaotic waters of the lifeless ocean, an entity that they called Nu, parted as a pyramid shaped mound rose up through the waves. This shape, the benben, was the first part of Earth, the first sign of life, rising from out of the waters. The mythological imagery of Egypt naturally reflected the reality of their environment, where the rising waters of the Nile flooded the land, only to recede again and leave fertile ground with rich muds ready to be seeded with crops, the source of Egypt's bounty and life.[2]

While the shape of the pyramid derives from mythology, the Egyptians had several reasons for building them. The pyramids served religious and funerary purposes, while also serving as reinforcing power structures for Egypt's rulers, but the process of building also served a valuable practical function. Egypt required a large work force to produce the food needed to feed its people, as the rich soils surrounding the Nile needed to be seeded, crops tended and harvests reaped. For one entire season out of the year, however, the farming belt of Egypt was covered by water as the Nile flooded its banks, leading to a large part of Egypt's population being idle during that time. The building of monuments was a valuable method of keeping an otherwise idle population active, thereby guaranteeing employment for all throughout the year. Farmers in the Old Kingdom period who were idle and wanted to work during the Nile's period of inundation could get paid and avoid taxes by working on pyramid building projects. Egyptian citizens with nothing to occupy them while their farming lands were under water could thus spend the season erecting timeless monuments to their ruler, receiving wine and beer thrice daily as part of their working conditions.[3]

Given the difficult and no doubt deadly nature of the labor, it has long been assumed that the Egyptians wouldn't have resorted to building the pyramids all by themselves. Popular culture images of present day have shown

erroneous depictions of Jewish slaves being whipped as they dutifully push vast blocks of sandstone along on trundling wooden logs. Such was the case in *The Ten Commandments*[4] and the animated *Prince of Egypt* even showed wooden scaffolding around the Sphinx.[5] In reality, wood was a rare commodity in Egypt, imported from abroad and used as a prestige item. The Sudan supplied ebony wood, pine and cedar were imported from Syria,[6] and large timbers were imported from Lebanon for shipbuilding.[7] The lack of wood in the largely desert regions of Egypt led fringe theorist Erich von Daniken to conclude that aliens must have been behind the construction of these great edifices, an explanation that has since had its own impact in popular culture through television programs like *Doctor Who*[8], as well as film and television franchises like *Stargate*.[9] "The stone blocks used for building," von Daniken stated, "were moved on rollers. In other words, wooden rollers! But the Egyptians would scarcely have felled and turned into rollers the few trees, mainly palms, that then (as now) grew in Egypt, because the dates from the palms were urgently needed for food and the trunks and fronds were the only things giving shade to the dried up ground. But they must have been wooden rollers, otherwise there would not even be the feeblest technical explanation of the building of the pyramids."[10]

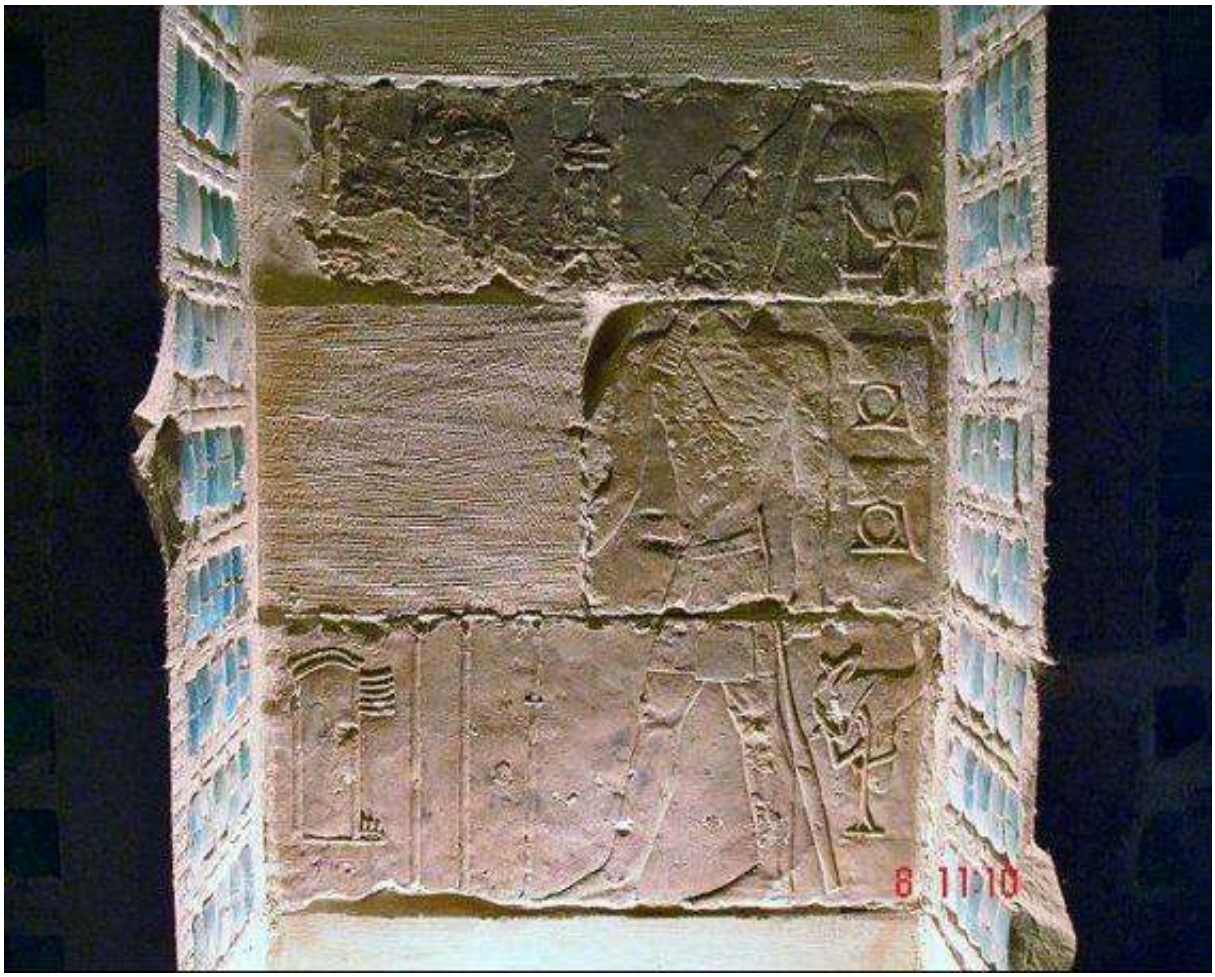
Von Daniken's central argument about the achievements of the past is that humans did not have the capacity to attain such successes and were therefore not responsible for the great monuments of antiquity. He suggested instead a utopian past when space travelers, possibly native Martians seeking to escape changing environmental condition on their own world, escaped to Earth and brought a wealth of knowledge and technology along with them.[11] Von Daniken theorized that "a group of Martian giants perhaps escaped to Earth to found the new culture of homo sapiens by breeding with the semi-intelligent beings living there… giants who come from the stars, who could move enormous blocks of stone, who instructed men in arts still unknown on Earth and who finally died out."[12]

However, experimental archaeology has come about as a profession to try to figure out the feasibility of these kinds of building projects by using reconstructive approaches that used the known building conditions and experiences of the past. Archaeological experiments found that while wood was in short supply, one thing that Egypt had plenty of during the time of the Nile inundation was mud. Using mud bricks to shape mud ramps, it was

possible for limestone blocks to be pushed and hauled along the slippery surface of the wet ramps. Such experiments have even been used to estimate the building period times for pyramid construction. Although not conclusive in proving the methods of the past, they certainly demonstrate the possibilities that past Egyptian craftsmen could have used.[13] Another theory is that the process of building was split between an inner and outer ramp. While the outer ramp was removed, the inner ramp became part of the pyramid's structure.[14]

The tradition of pyramid building was a long one in ancient Egypt occurring over hundreds of years, with techniques developing and improving, only to be forgotten and lost again. As a result, even as subsequent generations contributed new large-scale construction programs that changed the face of Egypt, they did so in quite different manners. The first of these was the Step Pyramid, located in the northwest of the city of Memphis in the Saqqara necropolis of Egypt. Today it is known as the Step Pyramid due to its stepped appearance, but in Egyptian times it was referred to as kbhw-ntrw. Commissioned by and made for the burial of the Pharaoh Djoser, its design and construction was overseen by his vizier Imhotep. The name Imhotep has since become infused with popular culture through the popular series of Mummy movies, where the mummified remains of Imhotep are reanimated through the power of an ancient curse, leading to the shambling, linen-wrapped and decomposing undead monster haunting the hapless treasure seekers who dared disturb his resting place.[15] In reality, the ancient Imhotep was a talented architect and builder who succeeded in creating something that had never been seen before. It was a design that would often be repeated, even improved upon, and it gave birth to an ancient industry dedicated to the afterlife, one that would leave an indelible mark on Egyptian life as well as death.

The Step Pyramid, also known as the Pyramid of Djoser



A relief inside the tomb of the Step Pyramid depicts Djoser facing the temple of Horus. Photo by Juan R. Lazaro

Imhotep took a number of roles in his life. He was the high priest of an ancient Egyptian sun cult, chief counselor to the Pharaoh, an accomplished sculptor and an architect. He improved upon the existing funerary design of the mastaba by building mastabas of dwindling size each on top of the other. When it was finished, he had produced a stairway to heaven upon which the Pharaoh Djoser could ascend into the next life.[16]

A mastaba

The Step Pyramid was crafted using cut stone construction, with the large steps decreasing in size as they rose in height, and the pyramid originally reached a total height of approximately 200 feet. Although currently appearing in the natural colors of the worn materials used in its construction, the pyramid was originally clad in limestone that was polished bright white, thus shining like a beacon under the bright light of Egypt’s sun. Around it, a mortuary complex was built with various decorated structures for ceremony and religious rituals.[17]

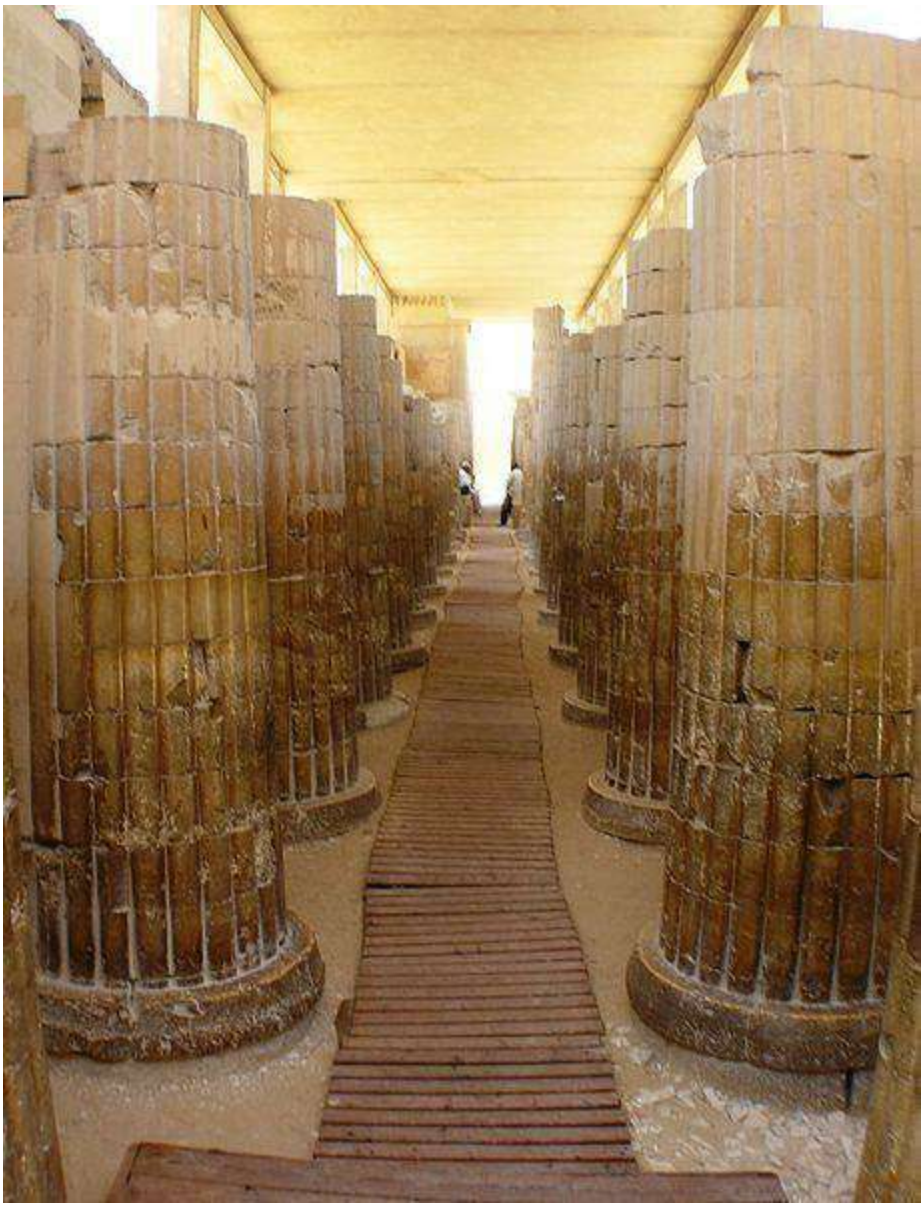
Temples near the complex

While it now looks old and has been surpassed by the pyramids that came after it, it is important to remember that at the time of its construction, the Step Pyramid was not only brand new but unlike anything Egyptians had ever seen. The Step Pyramid was radically different from the pre-existing architecture of Egypt, as were the techniques used to make it. While mud brick had previously been used for building practices, this cut stone edifice was much more labor intensive. It would also prove to have much greater longevity as a result. For centuries, the Step Pyramid dominated the landscape in which it was situated, due not only to its imposing size but also the shining white exterior that made it stand out all the more.

The exact date of construction for the Step Pyramid is not known, but it was built sometime during the reign of Pharaoh Djoser, who was estimated to have reigned for approximately 19 years between 2667-2648 B.C. The name Djoser is a modern one attributed to him, much as the Step Pyramid has been named long after the fact. In his tomb, he is referred to by his Horus name

Netjerykhet.[18] Ruler during Egypt's Third Dynasty, Djoser sought to align himself with eternity through the building of this structure. His ambitious plan for a monument to mark his burial, so expertly realized by his advisor and architect Imhotep, set the stage for the tradition of pyramid building that followed.

Djoser's burial vault was made of dressed granite laid in four courses, but the tomb was robbed during the ancient world, so by the time it was excavated in modern times, the body had long ago been removed. Undeterred, French architect Jean-Phillipe Lauer chose not just to excavate the area but also to reconstruct key portions of the 15-hectare sized complex surrounding the Step Pyramid.[19]



Reconstructed corridor leading to the entrance of the Step Pyramid

Chapter 2: The Buried Pyramid and the Layer Pyramid (2686-2613 B.C.)

The landscape of Egypt was forever altered by the design of the Step Pyramid, and the rulers who followed Djoser were keen to put their own stamp on the landscape by proceeding with similar examples of monumental architecture. The next attempt occurred during the reign of the Pharaoh Sekhemkhet Djoserty. The second ruler of Egypt's Third Dynasty, Sekhemkhet Djoserty was Djoser's direct successor and has been estimated as ruling Egypt for approximately 6 years, with his own pyramid constructed sometime around 2645 B.C.[20]

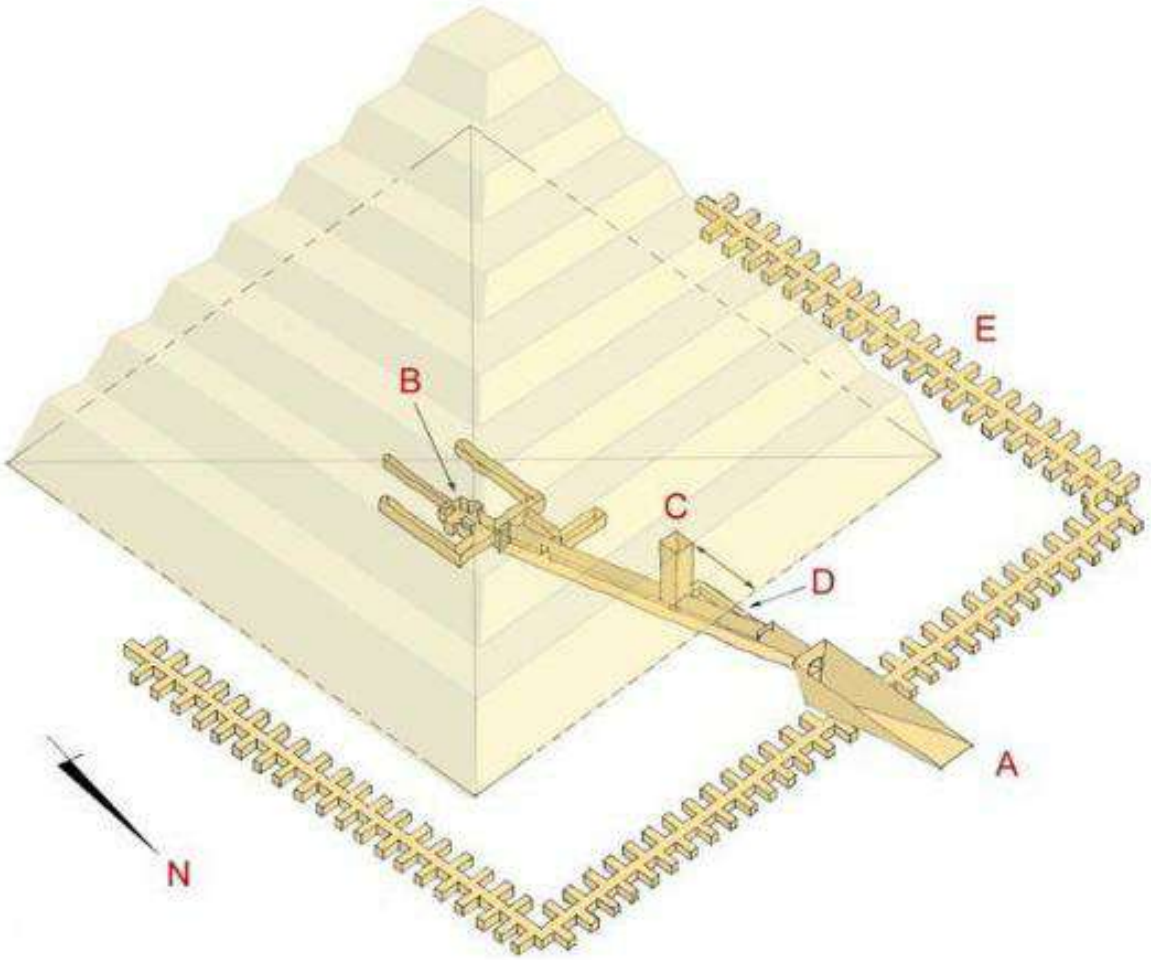
The Pyramid of Sekhemkhet was of a grand design, located to the southwest of the Step Pyramid. Everything about its design suggests that the monument was envisaged to build upon the example of the first pyramid and surpass it both in scale and style. But unfortunately, possibly due to his period of reign being shorter to Djoser's, the Pyramid of Sekhemkhet was never actually completed. Far from dwarfing the Step Pyramid, the unfinished masterpiece instead barely progressed above ground level, earning it a less flattering nickname in the years to come: the Buried Pyramid. The fact that the Buried Pyramid literally did not get off the ground meant that it was not even discovered until the middle of the 20th century.

The unfinished Pyramid of Sekhemkhet

The next attempt at pyramid building also occurred during the Third Dynasty of Egypt. This was the Layer Pyramid, currently known locally in Arabic as the Round Pyramid. This structure was located in the necropolis of Zawyet el'Aryan in Egypt. Although still disputed, the Layer Pyramid has been argued as having contained the tomb of Khaba. Evidence for this comes not from the Layer Pyramid itself, but rather from excavations at a tomb inside the associated pyramid complex.

The Layer Pyramid

Archaeological excavation has uncovered a lot of data at both the Buried Pyramid and the Layer Pyramid. Excavations at the unfinished Pyramid of Sekhemkhet were undertaken in the 1950s by Egyptologist Zakaria Goneim. Prior to his archaeological investigation the pyramid was unknown, evidenced only by a strange rectangular shape in the desert. Goneim identified the pyramid as an unfinished structure consisting of one step measuring over 250 feet along its length. It was located in the middle of a larger complex, with a descending passageway on the northern side.[21] Through the passage, some Third Dynasty stone vessels and papyri were located, and a wooden casket containing gold was discovered, along with beads and jars inscribed with Sekhemkhet's name. An alabaster sarcophagus cut from a single block was also identified and revealed as empty after its opening, possibly due to the grave robbers of an earlier era. Egyptologist Jean-Philippe Lauer also located a partially destroyed tomb at the southern side of the Buried Pyramid with a wooden coffin containing the remains of a two-year old child.[22]



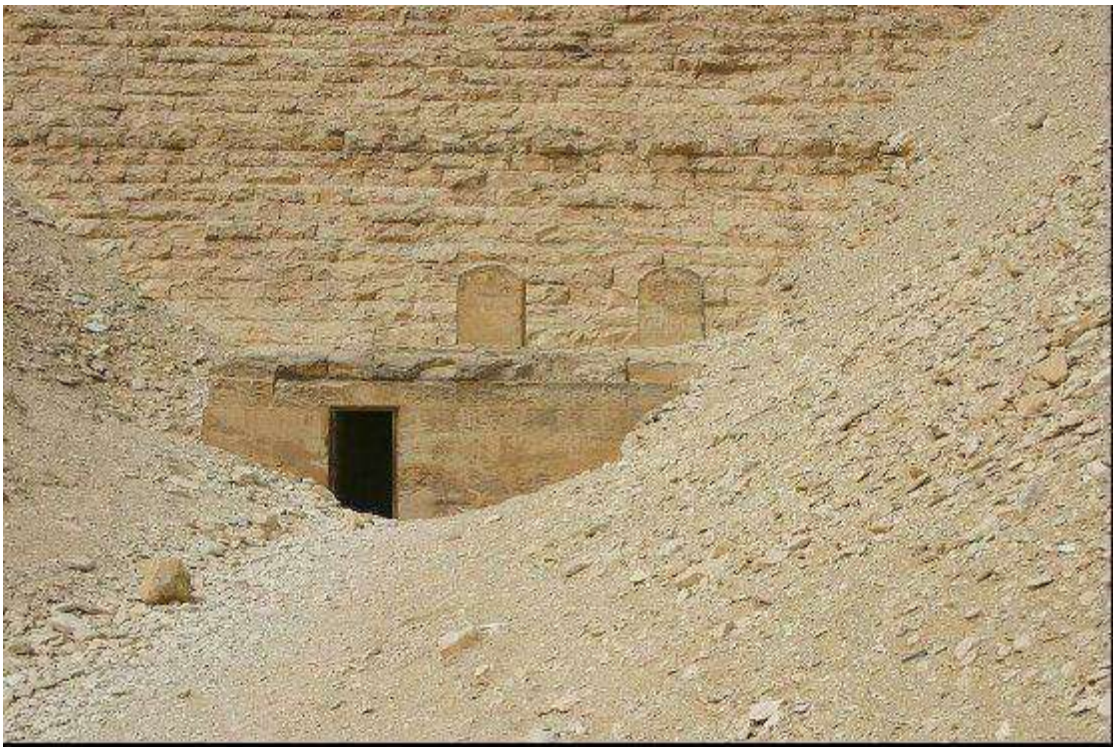
A computer generation of what's believed to be the intended design for the Buried Pyramid. Photo by Franck Monnier

Chapter 3: The Pyramid of Meidum, the Bent Pyramid and the Red Pyramid (2612–2589 B.C.)

At the end of the Third Dynasty, none of Egypt's rulers had yet been able to exceed the design of Imhotep and the ambition of Djoser as exemplified by the Step Pyramid. However, Pharaoh Huni was determined to succeed, so he ordered construction work to begin to the south of contemporary Cairo in Meidum (or Maidum). The town was to be the location of a large pyramid, which in turn would be surrounded by a cluster of huge mud-brick mastabas. Known later as the Pyramid of Meidum, this structure sought in its design to emulate the initial work of Imhotep, and its designer was even one of Imhotep's successors, but the successor's modifications to the initial Step Pyramid design were to prove disastrous.

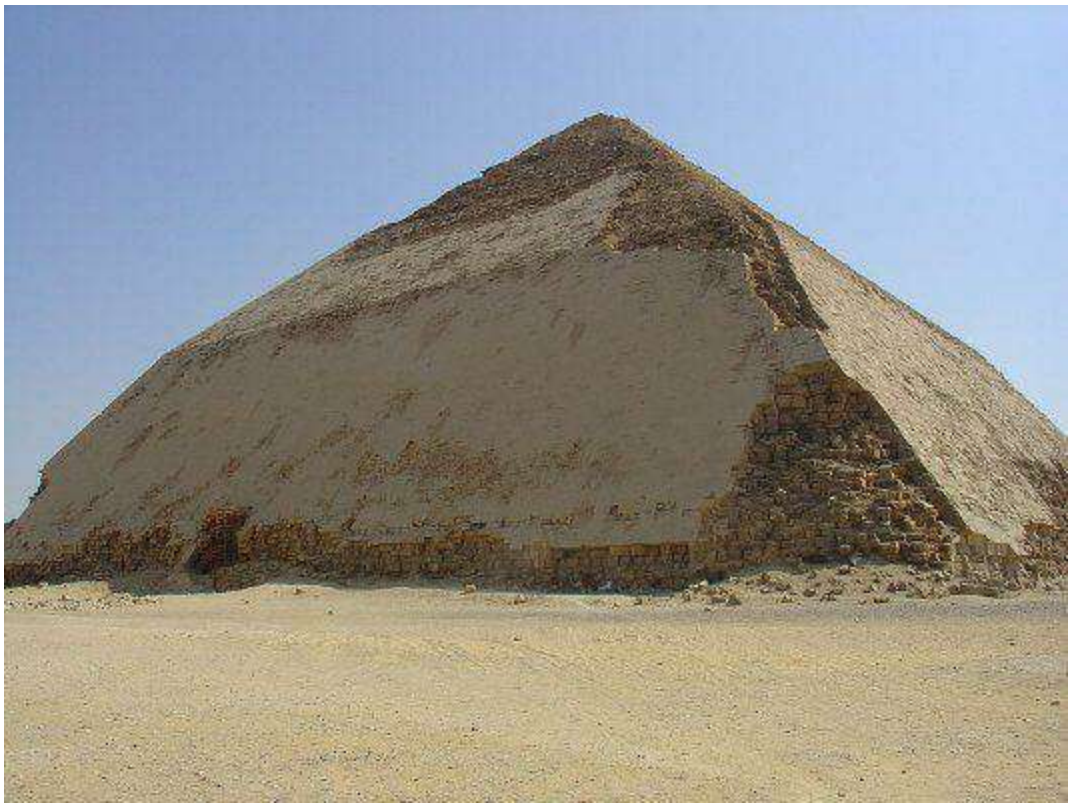
The Pharaoh Huni passed away before the work could be completed, so his successor Sneferu decided to carry on with the works and see it through. Adding to already existing problems was the fact that the pyramid was already under construction when its design was altered due to new requests from Sneferu to make it bigger. As a result, the construction was extended, and the steps of the completed structure were encased in limestone upon a sand base. However, due to this sand base and a gradient on the outer surface, instead of resulting in flat steps, the stability of the pyramid was severely compromised. Before it reached completion, one of Egypt's rare storms led to a downpour that wreaked havoc upon this altered design, washing down the structure and eroding it to the point that the unfinished pyramid collapsed under its own weight. This unfortunate event led to a less than flattering nickname to be associated with the structure in later years: the Fake Pyramid. [23]

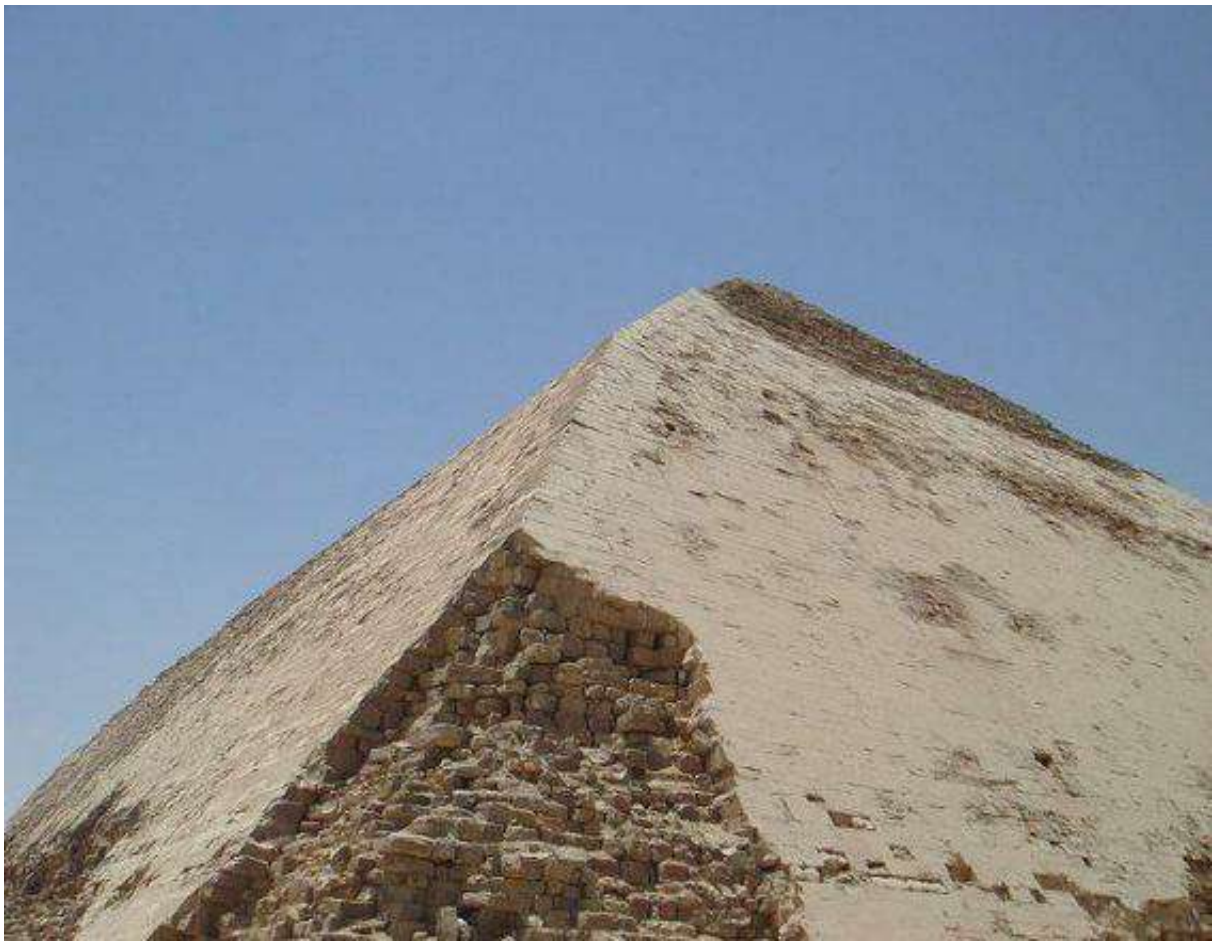
The pyramid at Meidum



A mortuary temple at the pyramid

The so-called Fake Pyramid was abandoned at this point and left incomplete. Its tomb remained empty, with raw walls and wooden support struts in place, and the mortuary temple of its base was covered by rubble and left there. Still, the Pharaoh Sneferu was not so easily deterred. Djoser's Step Pyramid had been an unqualified success, and Sneferu was intent on repeating the magic somehow. Around 2600 B.C., he commissioned another pyramid to be undertaken in the royal necropolis of Dahshur. Learning from the lessons of the collapsed Pyramid of Meidum, the angle of gradient to the pyramid's sides was altered during this attempt. It is also possible that early signs of instability caused a redesign during the construction phase, but either way, the alterations led to the pyramid's top section tapering in at a different angle to the base section of the structure. While the lower sections of the pyramid measured 52 degrees, the slope gradient of the pyramid's sides were altered to 43 degrees towards the top of this pyramid. This earned the structure its own disparaging title: the Bent Pyramid.[24]



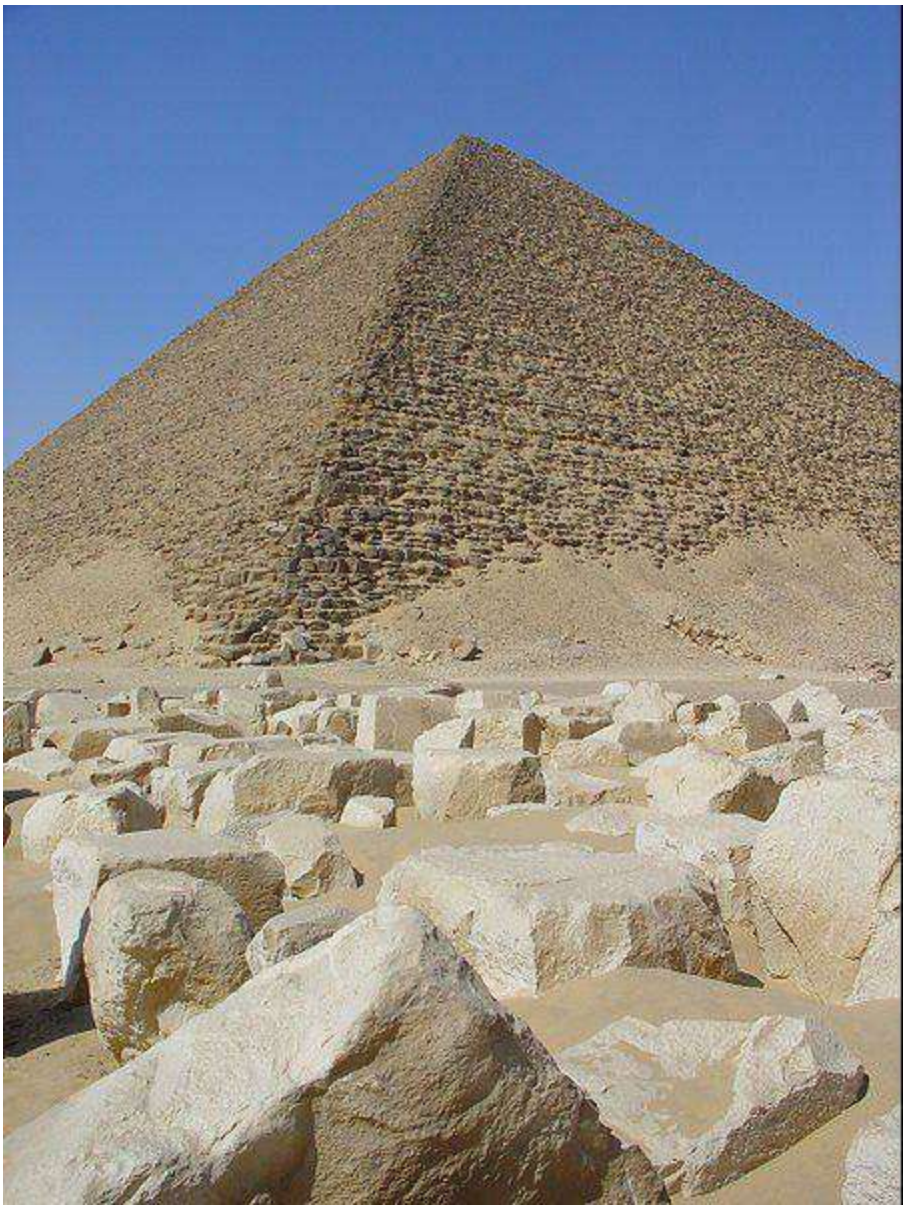


Pictures of the Bent Pyramid

While the Bent Pyramid certainly looks strange, especially in comparison to Egypt's most famous pyramids, the significance of the Bent Pyramid is the way in which its design represents a transitional stage. The design of the Step Pyramid had been altered, and this was the first attempt to construct a smooth-sided pyramid. The result was not exactly as intended, but it was a new direction for pyramid designs in Egypt, and what it did achieve would be improved upon in the years to follow. It boasted two entrances, multiple chambers (including one below ground), and a hole in the ceiling of the northern chamber connecting to the western entrance's passage way. Two stone blocks covered this western entrance, sliding down ramps to block the passage. The pyramid, named at the time as Sneferu's Southern-Shining-Pyramid, to this day still retains the majority of its outer layer of polished limestone.[25]

The Bent Pyramid revolutionized subsequent building techniques, but as any view of the pyramid quickly indicates, all did not go as planned. Possibly

dissatisfied at the end result for the Bent Pyramid, Pharaoh Sneferu started work immediately on a new structure adjacent to the last one. This time, the angle was corrected on this new pyramid to be 43 degrees from the very base of it, all the way to its apex. This would come to be called the Red Pyramid, based the red color of the stone used to construct it, or sometimes the North Pyramid. It is even referred to by locals occasionally as the Bat Pyramid.

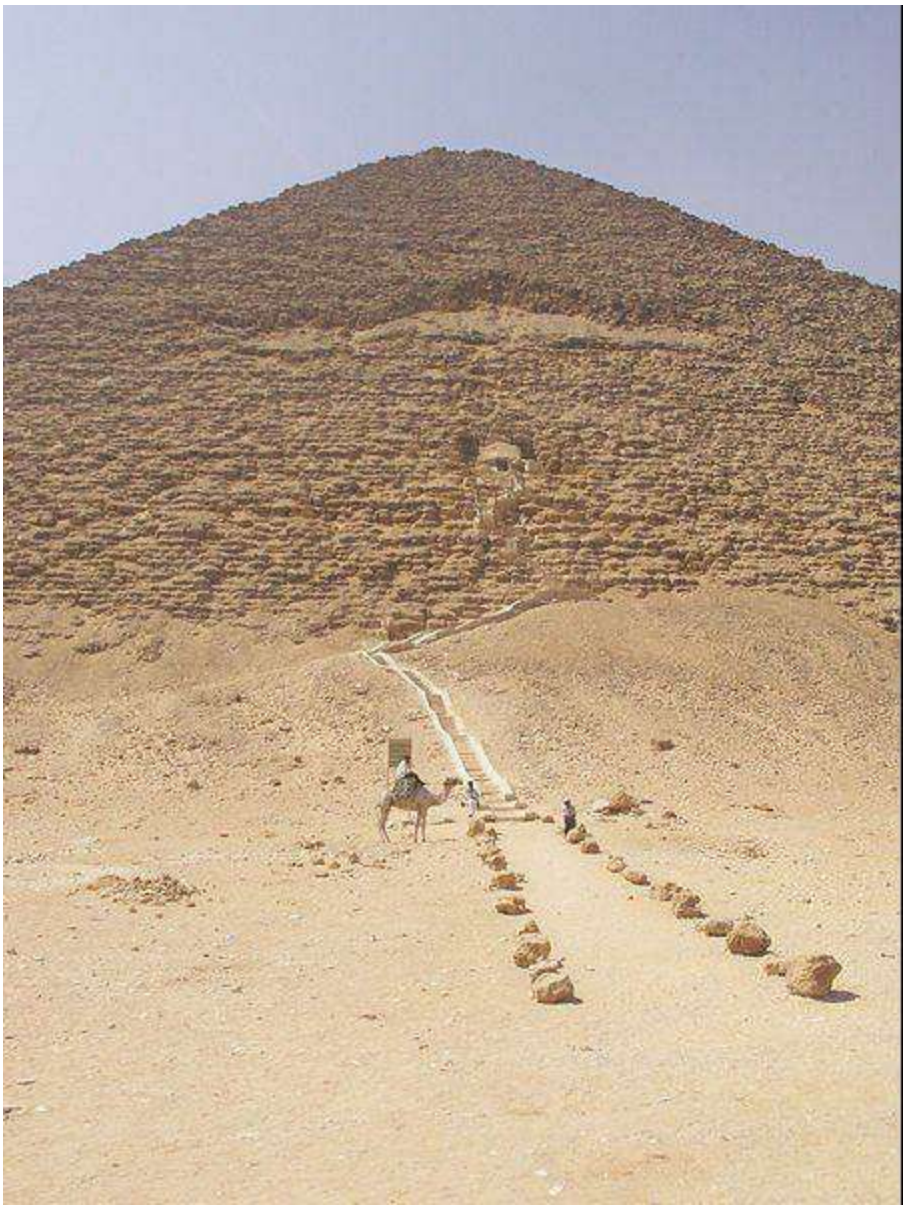


The Red Pyramid. Photo by Ivrienen

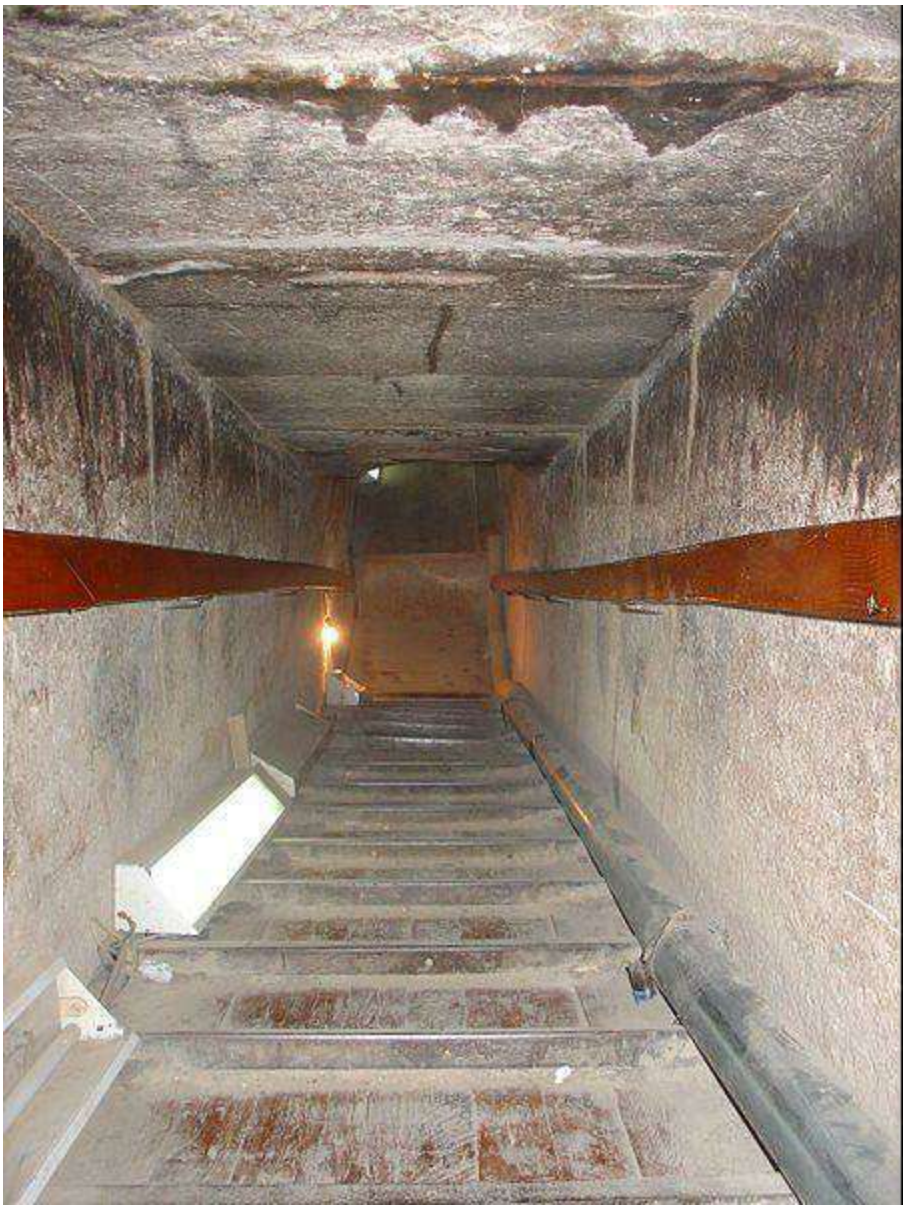
The name of the Red Pyramid was applied to it long after construction, because it was originally encased with white Tura limestone. Its underlying reddish color was only revealed over time as the limestone was stripped

away, taken by builders who used it for their own local construction needs. Such works would include a variety of buildings in Cairo constructed during Egypt's so called Middle Ages. Some instances of the past casing are still visible at the site, but by and large it is all gone, revealing the red color underneath. When this pyramid was completed, it broke a number of world records. It became the tallest standing human constructed structure anywhere in the world at that time, and it also became the first successful construction of a smooth-sided pyramid.[26]

Located less than a mile to the north of the Bent Pyramid, the Red Pyramid was a resounding success for Sneferu. He had redesigned the pyramid, coming up with a new look in the smooth sides. It was also a more stable structure, supported by the degree of gradient to the apex, which changed from 52 degrees to 43 degrees. How long it took to build is open to interpretation, with Egyptologist John Romer estimating 10 years and 7 months based on graffiti inscriptions found at the site.[27] Egyptologist Rainer Stadelmann estimates it took approximately 17 years to build.[28] It began in Pharaoh Sneferu's 30th year of reign, and by the time it was finished, it was the template for all the pyramids to follow, including the greatest of them all: the Great Pyramid of Giza.

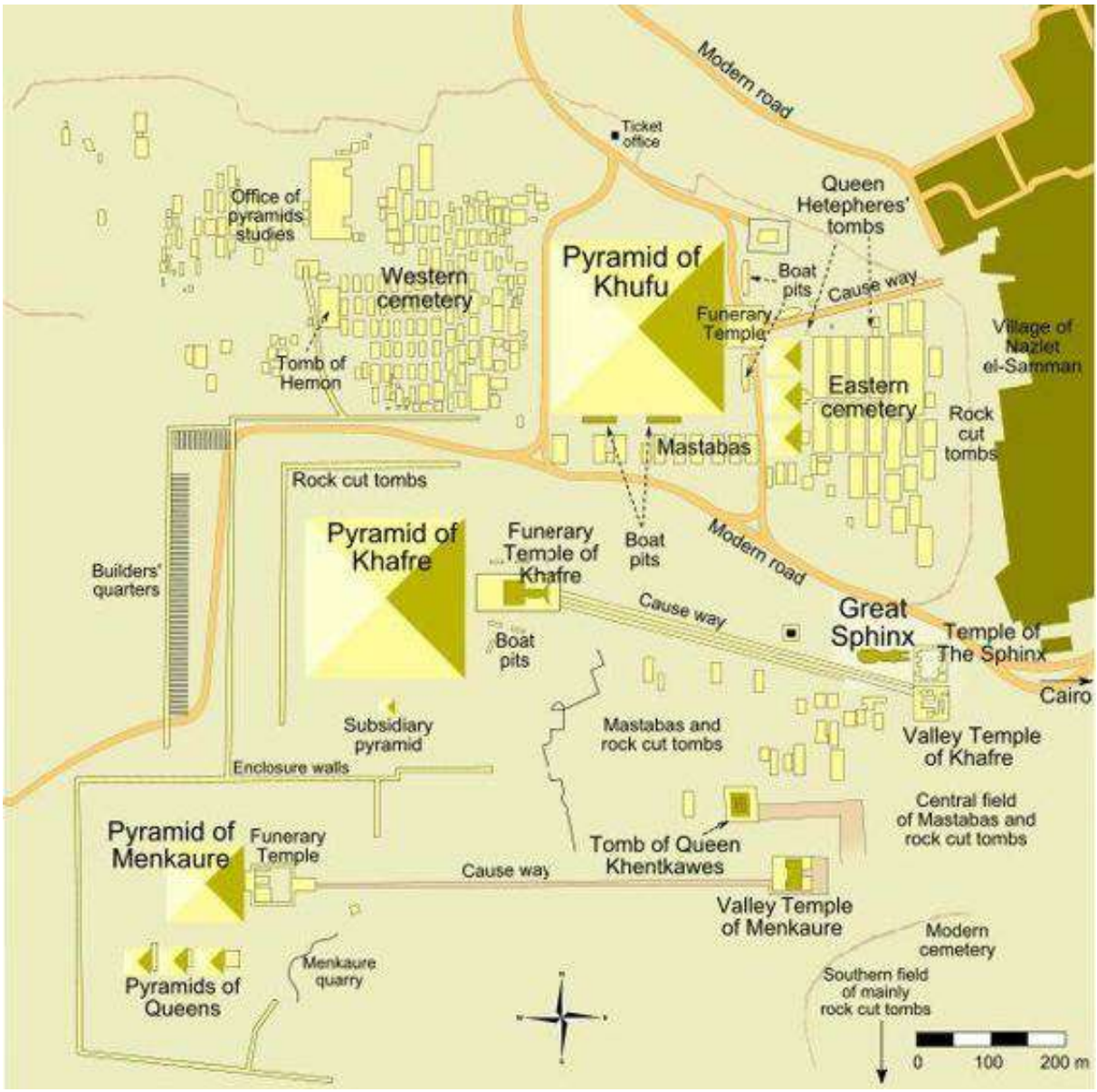


The entry point into the Red Pyramid



A passageway inside the Red Pyramid

Chapter 4: The Great Pyramid of Giza (2589–2566 B.C.)



The layout at Giza

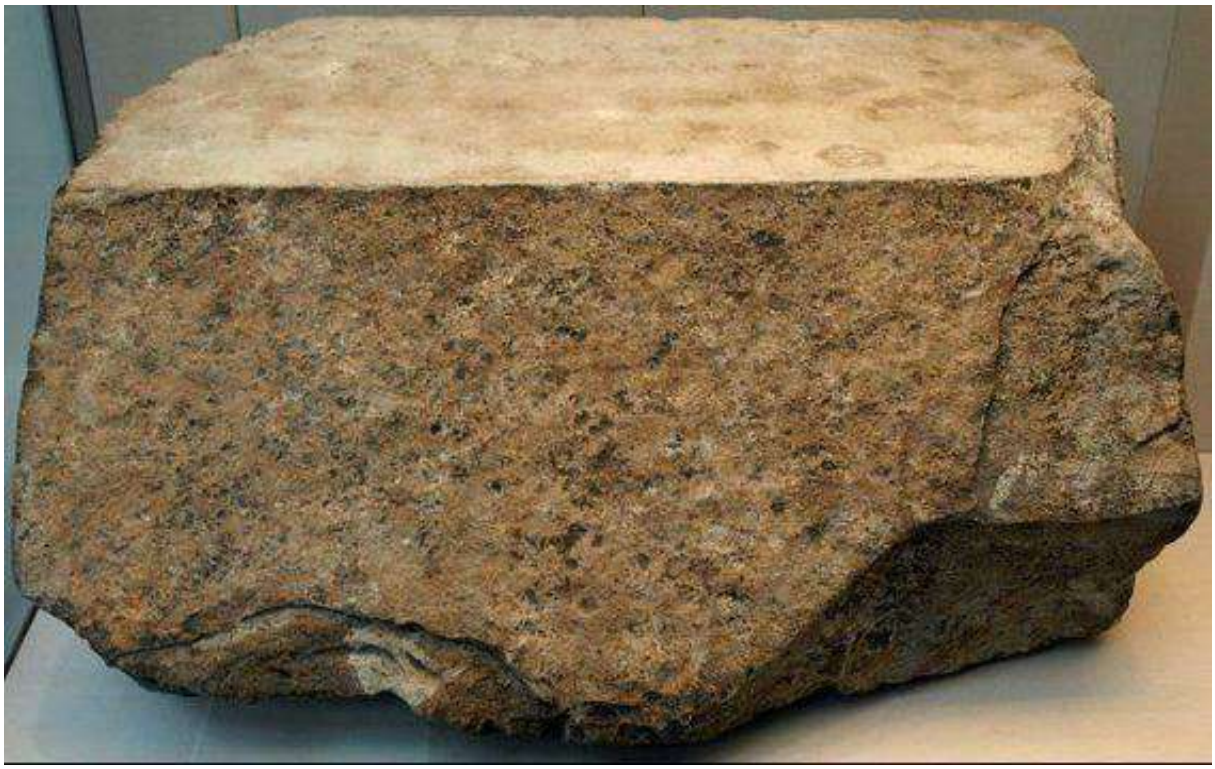
The Great Pyramid of Giza, also known as the Pyramid of Khufu

In addition to being one of the Ancient Wonders of the World, the Great Pyramid of Giza is extraordinary for a number of reasons. It is one of the greatest feats of engineering in the ancient world, to the extent that it remained the tallest built structure in the world from the time it was finished up until the Lincoln Cathedral was completed around 1300 A.D.[29] The fact the nearly 520 feet tall spire of the cathedral was erected nearly 3800 years after the Great Pyramid of Giza was constructed, a testament in its own way to the longevity of the pyramid itself. Even since then, it remains a monument that has stood the test of time, remaining the only one of the original seven wonders still surviving. Archaeologists have estimated that when completed, the Great Pyramid stood 480 feet tall, with each side measuring 756 feet in length, with a total mass estimated at being 5.9 million tons and a volume of approximately 2.5 million cubic meters.[30]

Part of the challenge in building the pyramid came from the assembling of raw materials. An internal hillock was utilized at the core, with limestone blocks and granite stones utilized for the structure itself. These were quarried wherever outcrops of suitable material were available, including some locations across the Nile River and others that were further upstream and

downstream. Existing cracks in the limestone had wooden wedges hammered into them, and the wedges were then soaked with water, causing them to expand and crack the stone. In this way, limestone blocks could be removed and then cut to size. Boats were then used to transport the finished stone along the Nile to the construction location of the pyramid.

Even today, the Great Pyramid of Giza is an imposing structure to look at, but what is currently visible of the pyramid today is merely its internal superstructure. When this was initially completed, a casing of smooth stones was added to the outer surface, giving the pyramid an exterior finish that caused it to shine blinding white in the light of the Egyptian sun. The outer casing of fine Tura limestone was gradually removed over the succeeding generations, as the high quality material was often taken and used for the building of later structures.[31]



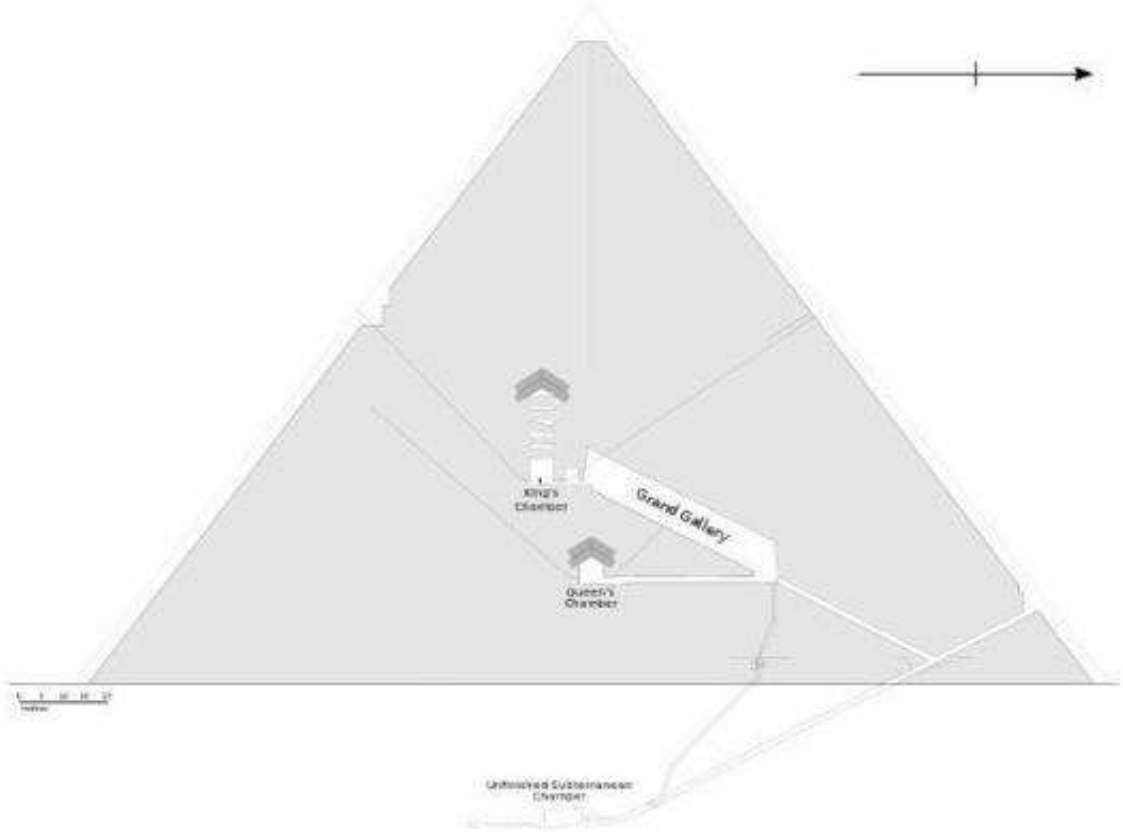
One of the casing stones used at the Great Pyramid of Giza

The total number of limestone blocks used to construct the Great Pyramid of Giza has been estimated by Egyptologists at approximately 2.3 million, and as if that wasn’t enough, granite stones weighing up to 175,000 pounds were used in constructing the King’s chamber within the pyramid. The overall construction may have used as much as 5.5 million tons of limestone,

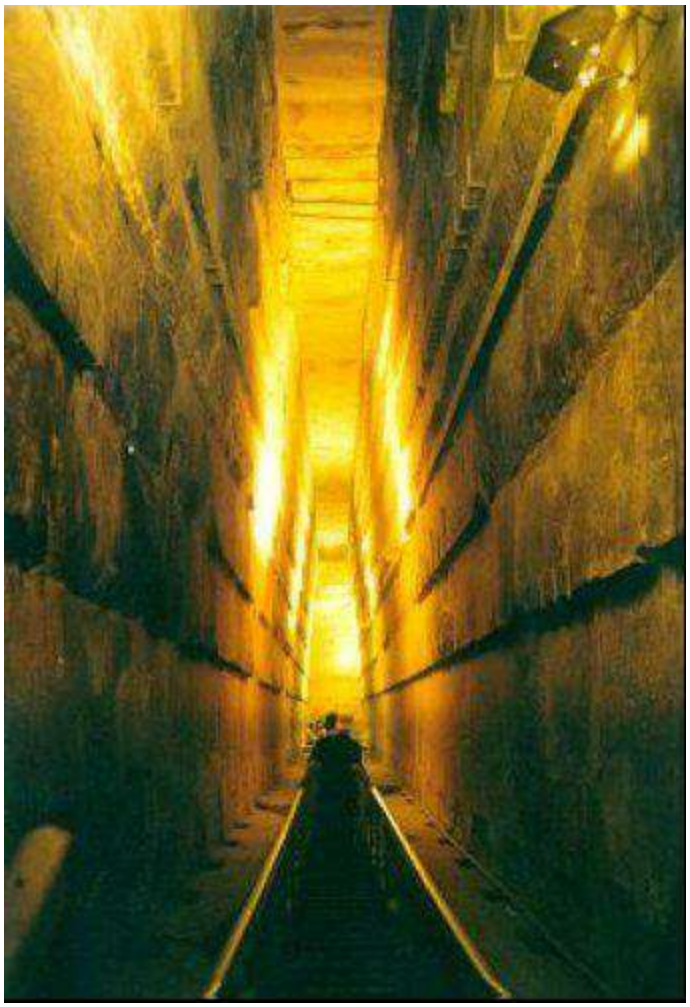
8,000 tons of granite and 500,000 tons of mortar.[32] Most extraordinary of all is the overall accuracy of the structure. Measurements taken by archaeologist Sir Flinders Petrie in the 1880s identified that base measurements of the four sides of the pyramid had an average error of as little as 58 millimeters in length. Furthermore, the alignment of the sides is closely matched to the four compass points, based on true north, with a mean corner error of only 12 seconds of arc. Such measurements show a dedication to detail and accuracy on the part of the ancient Egyptians who designed and built the structure.[33] The architects and the workers who built the pyramid achieved something no one had before, and nobody would surpass the achievement after. Having learned from the structures completed previously, such as the errors of the so-called Bent Pyramid, the architect was able to capitalize on existing knowledge to perfect the art of pyramid design.

Like Imhotep before him, the designer of the Great Pyramid of Giza demonstrated skill and insight in his achievement. Egyptologists believe that Khufu's vizier was the great architect behind the building of this monumental structure, a man named Hemon (or possibly Hemiunu). Hemon was born into a well connected family in Egypt, and as the son of Prince Nefermaat and his wife Itet, he was the grandson of Pharaoh Sneferu and therefore related to the very Pharaoh who he advised. After death, his own remains were buried in a tomb close to the Great Pyramid that he may have helped to realize.[34]

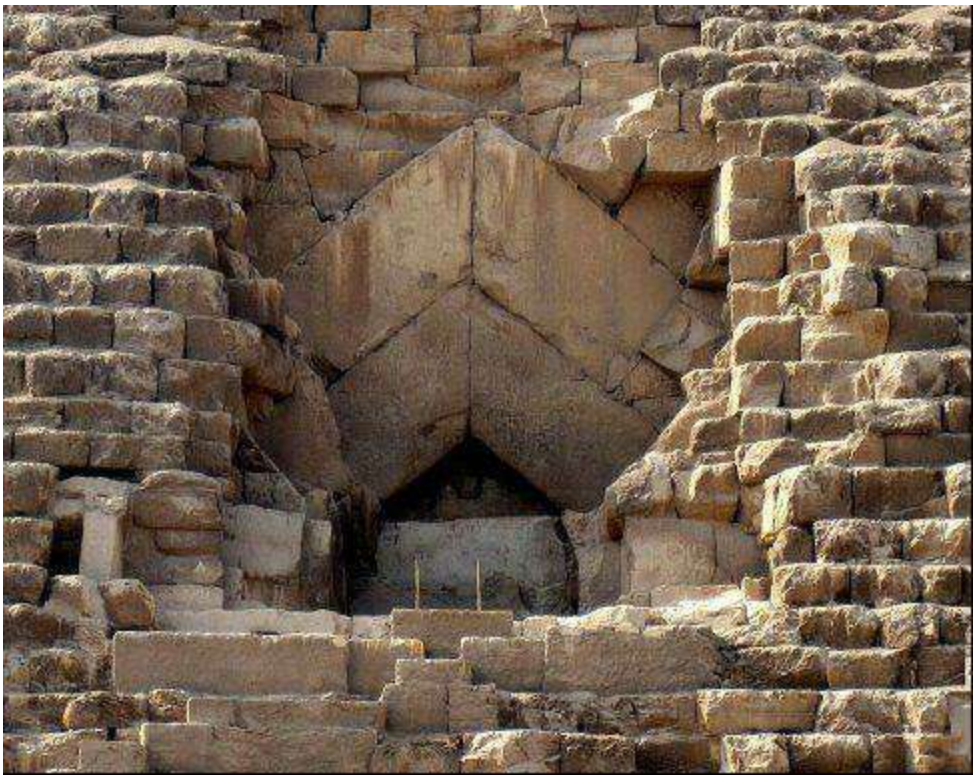
Regardless of whether Hemon was the architect, what is known is that the pyramid was commissioned by Fourth Dynasty Egyptian Pharaoh Khufu (Cheops in Greek), so the Great Pyramid of Giza has also been referred to as the Pyramid of Khufu or the Pyramid of Cheops. Located within the Giza Necropolis in what is now known as El Giza in Egypt, the complex also contains a number of buildings, with two mortuary temples in honor of Khufu, three smaller pyramids for Khufu's wives, another smaller pyramid, a raised causeway, and small mastaba tombs. The pyramid also contained a number of chambers, including a Queen's Chamber and a King's Chamber, along with both ascending and descending passageways.[35]



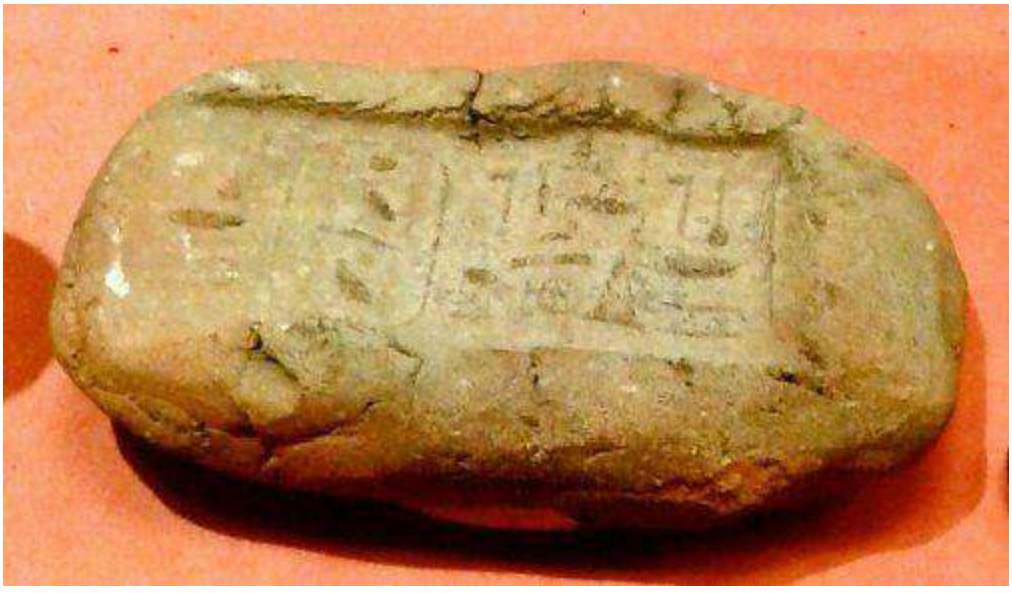
Computer generation of the layout of the Great Pyramid of Giza. Photo by Jeff Dahl



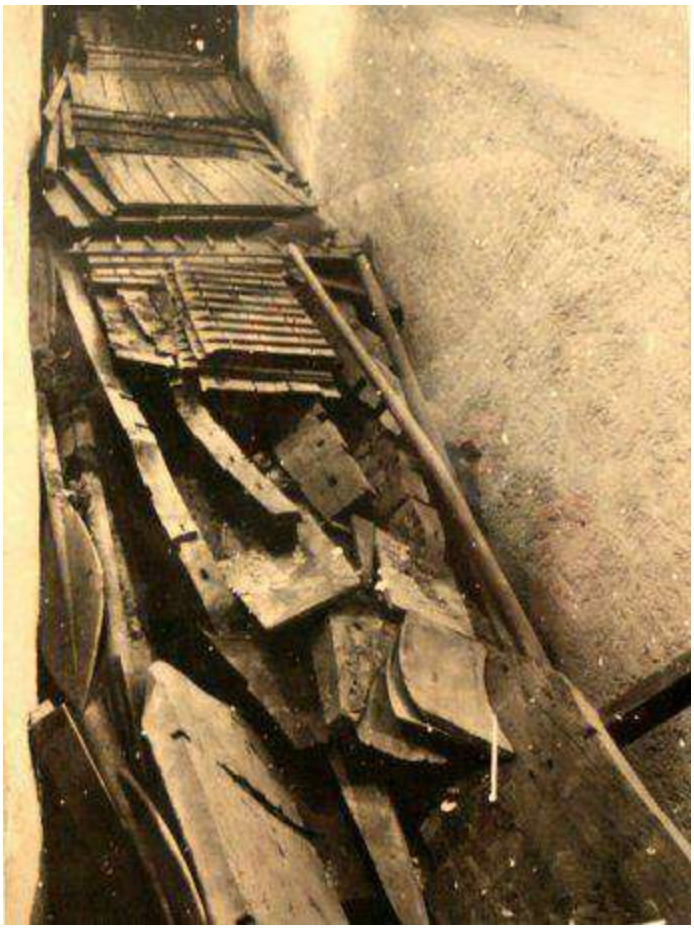
Picture of the Grand Gallery inside the pyramid



The entrance into the pyramid today was created in 800 A.D. and is known as the “Robbers Tunnel”



A clay seal with the name of Khufu on it was found in the pyramid. It is now at the Louvre in Paris

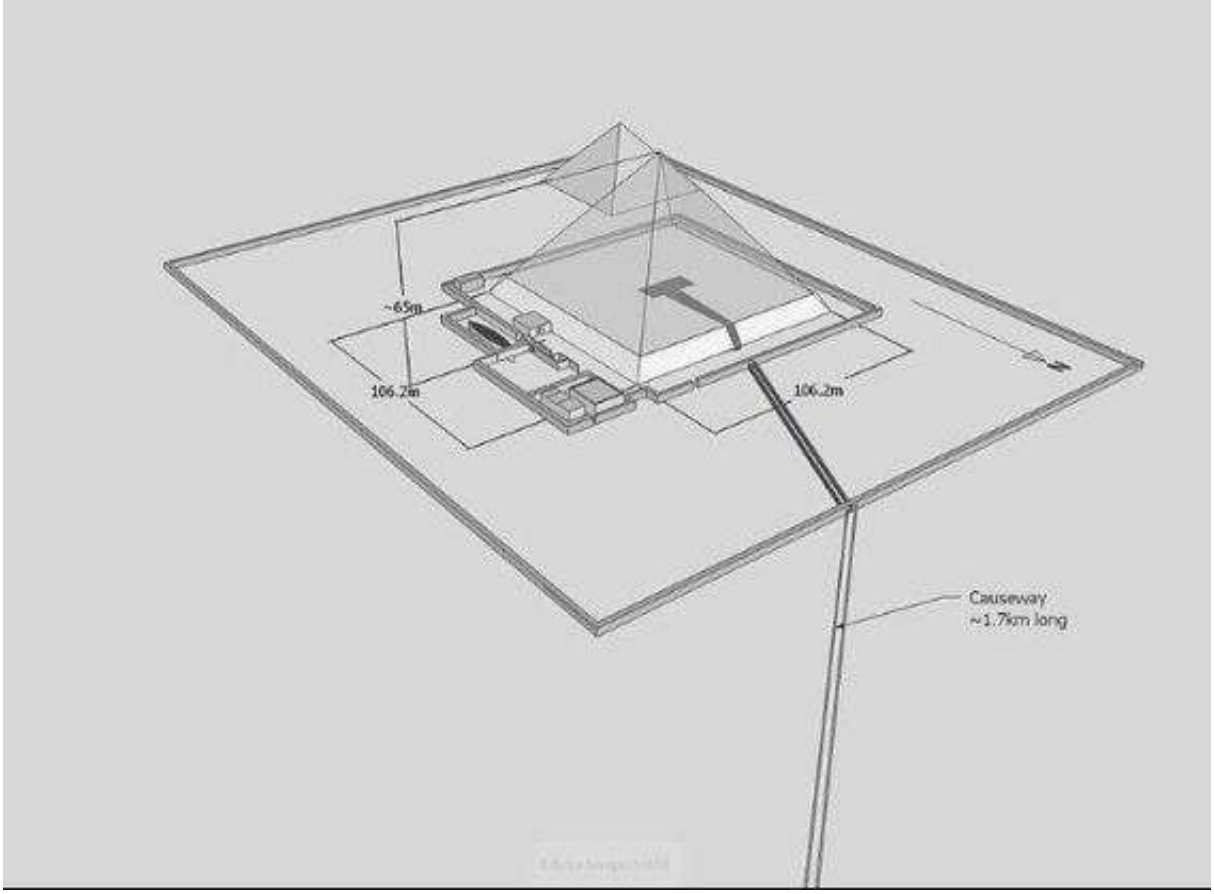


This boat was buried at the Great Pyramid, presumably for Khufu to use in the afterlife.

Examination of the available data suggests to Egyptologists that the pyramid construction period lasted about 20 years. A rough calculation of the requirements to achieve the total work within this timeframe suggests the installation of over 1.75 million pounds of stone every day, moving an average of more than 12 of the blocks into place each hour throughout both the day and the night.[36] By any calculation, the Great Pyramid of Giza was a remarkable achievement.

Chapter 5: The Pyramid of Djedefre and Khafre's Pyramid (2566–2532 B.C.)

The monumental works so successfully created during the Pharaoh Khufu’s reign not only provided the template but also the motivation for the works that followed. Building vast funerary structures upon the landscape of Egypt kept the populace employed, reinforced the power of the ruler through both physical and symbolic means, and ensured longevity for the pharaoh’s name long after his death. Naturally, the Pharaoh Khufu’s son and successor, Djedefre, sought to emulate his father’s success by commissioning similar works of his own, resulting in what would come to be known as the Pyramid of Djedefre, or Djedefre's Starry Sky as it was known in ancient times.



Computer model of the layout of the pyramid. Photo by R.F. Morgan

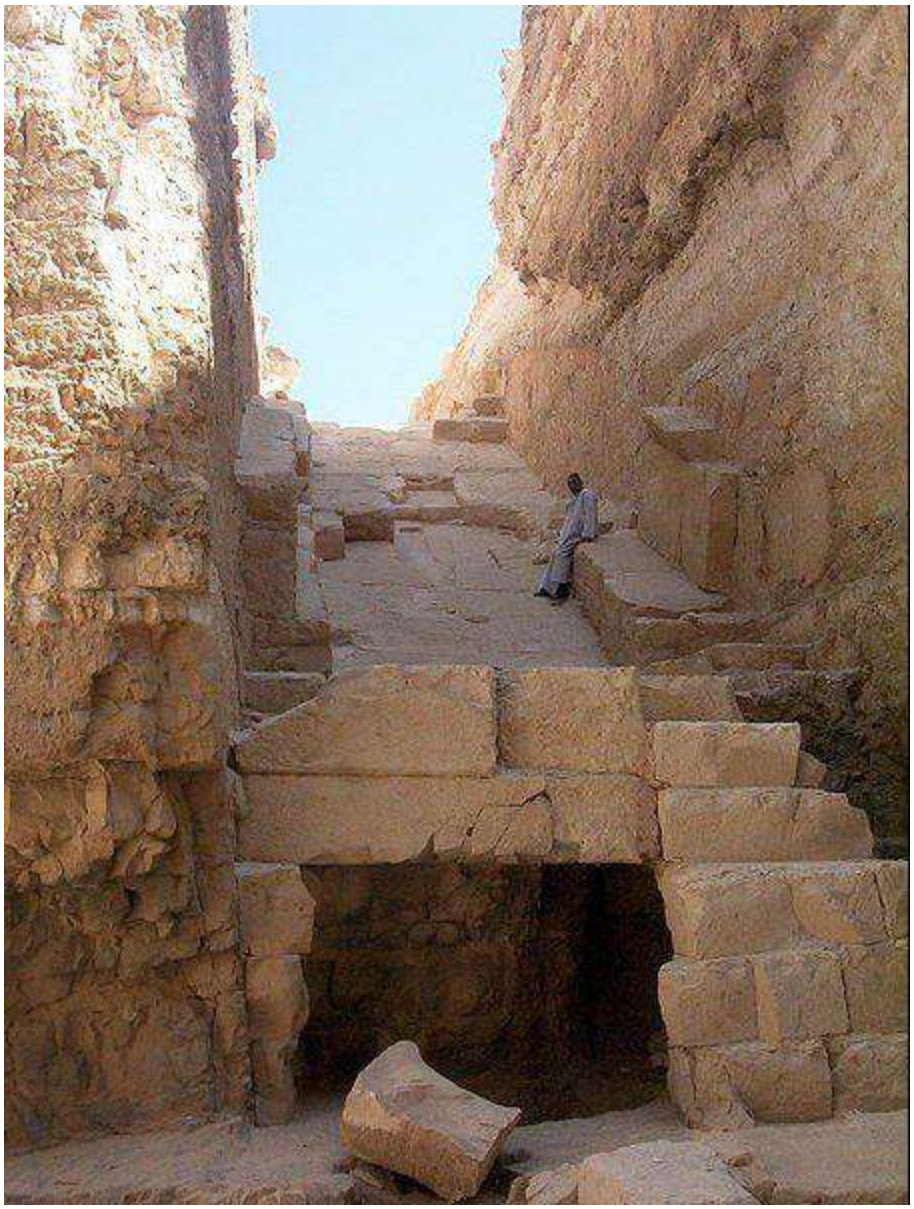
Located at Abu Rawash in Egypt, it was constructed to be both vast and beautiful. Although not as large as the Great Pyramid of Giza, measured against all of Egypt’s pyramids throughout history, at the time of its

completion it would have been the third largest of the pyramids in terms of size. The structure had an exterior of polished granite and limestone, and the workers imported raw materials with high levels of quality. It was also crowned by a large pyramidion, the capstone at the apex of the pyramid.[37]

The pyramid also contained some new designs in pyramid structures. The chambers in previous pyramids were located inside the pyramid itself, but in this case, they were constructed below the pyramid. A natural mound was used as the center of the pyramid, with a pit measuring about 70x30 feet excavated down to a depth of over 60 feet within the mound. With the addition of a ramp and access passage, this became a chamber area, and the pyramid was then constructed over and above it. This technique was a simplification of structural design and negated the necessity for later tunneling. Other structures surrounding the Pyramid of Djedefre also used natural mounds as their internal foundation, and a rectangular enclosure was also built around the pyramid and its associated structures.[38]

Despite the precision of its construction and the beauty of its outcome, the Pyramid of Djedefre has not stood the test of time. Today, it is little more than a pile of ruins, a state that led many early archaeologists toward the conclusion that the pyramid was not completed. Further investigation eventually led to the conclusion that the structure was in fact completed, but its use of high quality imported building materials made it a target in later years. When this first started is uncertain, although the end of the New Kingdom period has been identified as the most likely period in which materials were taken from this pyramid and used for ne w projects. While the Great Pyramid of Giza had its outer layers stripped and the limestone blocks reused, the Pyramid of Djedefre fared much worse. The majority of it was taken after the conquest of Egypt under Octavian and used by the Romans to construct building projects of their own. Further materials were taken during Egypt’s Christian era and used in the construction of a Coptic monastery in Wadi Karin. Regarding the gradual nature of the pyramid’s destruction, Egyptologist Miroslav Verner noted, “The destruction started at the end of the New Kingdom at the latest, and was particularly intense during the Roman and early Christian eras when a Coptic monastery was built in nearby Wadi Karin. It has been proven, moreover, that at the end of the nineteenth century, stone was still being hauled away at the rate of three hundred camel loads a day."[39]

The remains of the pyramid



Part of the ruins

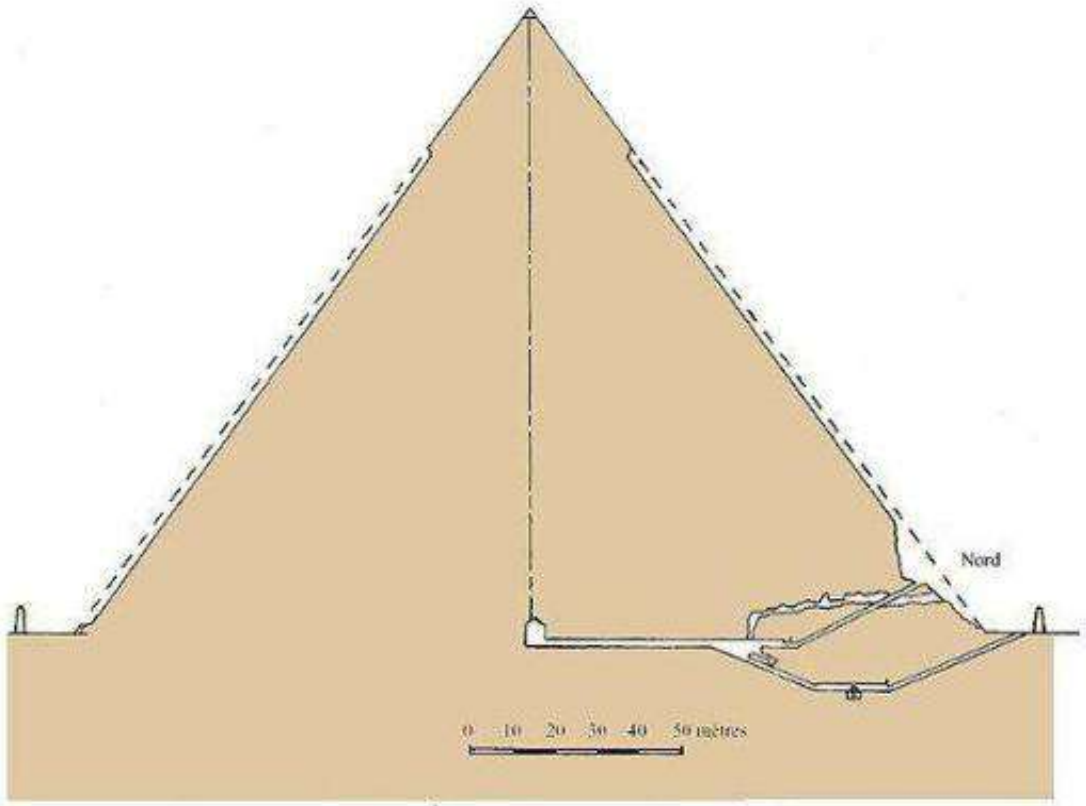
The next major pyramid to follow completion of the Pyramid of Djedefre was the Pyramid of Khafre, also known as the Pyramid of Chefren. This pyramid was constructed during the reign of the fourth dynasty Pharaoh Khafre (also known as Pharaoh Chefren), who ruled from approximately 2558-2532 B.C. It was constructed adjacent to the Great Pyramid of Giza, and rose to a height of nearly 450 feet with its base having a length of over 700 feet. Limestone blocks were used in its construction, along with pink granite and casings of Tura limestone, all built upon a natural bedrock formation. A natural outcrop was also utilized for the pyramid's core, with

the southeast corner built up and the northwest corner cut down in order to create a level surface to build upon. The pyramid was built upon horizontal courses with larger blocks at the base, graduating in size to smaller variants as the pyramid reached greater heights. Rough courses are noted throughout the majority of the structure, with regular masonry contained within a narrow band in the pyramid's middle section.[40]

The Pyramid of Khafre

This pyramid contained the tomb of the Fourth Dynasty Pharaoh Khafre, but it was broken into by grave robbers during Egypt's First Intermediate Period. It was opened in 1372 B.C. and now contains graffiti written in Arabic on the burial chamber wall, most likely dating to the same period. Further robbery followed during the 18th dynasty, this time of the raw materials used in constructing the pyramid, with the overseer of temple construction taking casing stones to use in the construction of a temple in Heliopolis. This thievery of raw materials was actually undertaken under the direction of the famous Pharaoh Ramesses II (Ramesses the Great).[41] By

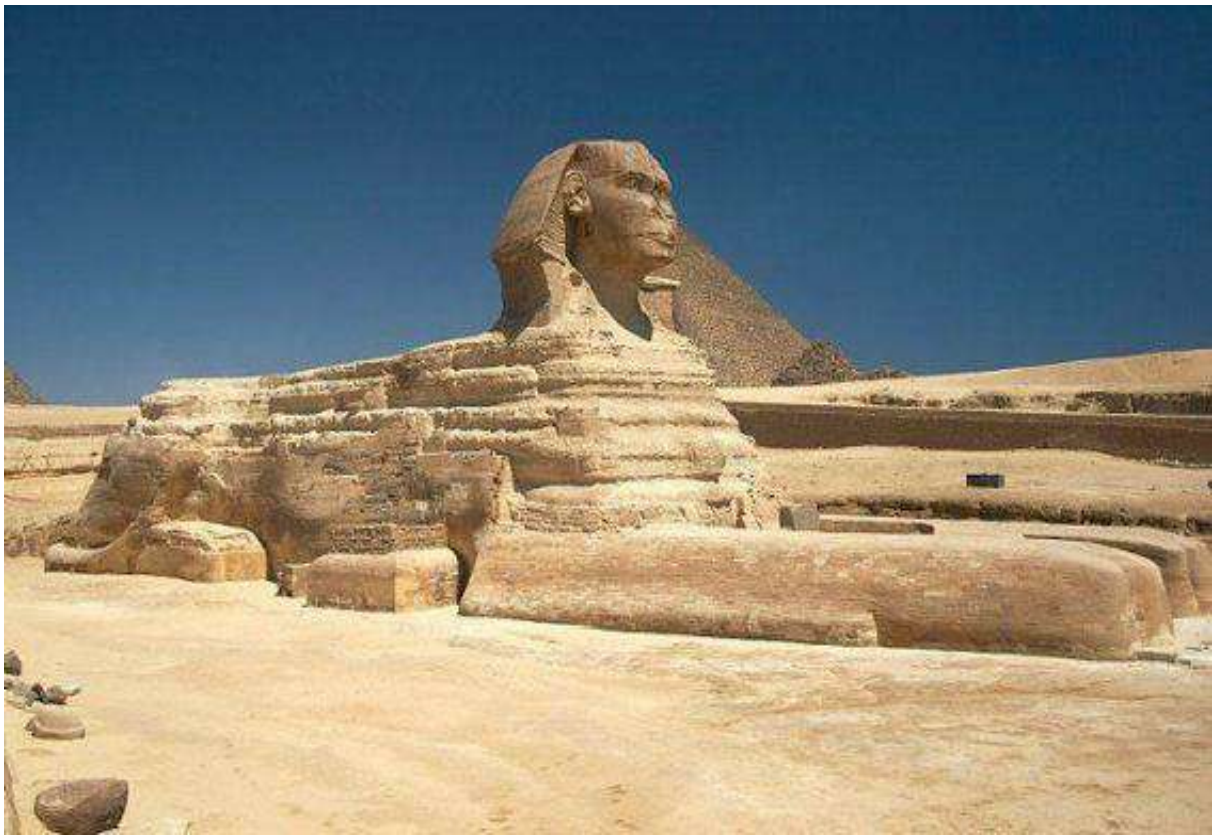
the time Italian strongman turned antiquities purveyor Giovanni Belzoni visited the pyramid's burial chamber in 1818, it was empty, apart from an open sarcophagus with a broken lid.[42] Some casing stones still remain on the structure but the capstone that once rested at its apex has long since been removed.



Layout of the interior of the Pyramid of Khafre. Photo by Monnier Franck

It has been hypothesized that another structure may have been linked to this pyramid: the famous Sphinx of Giza. Natural outcrops were utilized for the raw materials to build this pyramid, and what is now the Sphinx was one of those outcrops. Egyptologists have theorized that after blocks were cut from the outcrop to use for the Pyramid of Khafre, the outcrop itself was carved and shaped into the Sphinx.[43] A mysterious creature with a human head and lion's body, the sphinx was a famous mythological beast known

throughout the ancient world, and many Egyptologists think that the face of the Sphinx is that of Khafre himself.



The Great Sphinx

Chapter 6: Menkaure's Pyramid (2532–2504 B.C.)

Pyramid of Menkaure

Located on the Giza plateau is the Pyramid of Menkaure, constructed to house the tomb of the fourth dynasty Egyptian Pharaoh Menkaure. Located in the southwestern outskirts of contemporary Cairo, it is the smallest of the so-called Pyramids of Giza, with its original height estimated to have been just under 200 feet. With a base of nearly 350 feet, the pyramid was constructed of granite and limestone blocks, with the lowest 16 courses of granite and the entire exterior originally encased in Tura limestone. There were intended to be three satellite pyramids next to the Pyramid of Menkaure, but none of these were ever completed. The largest is partly made in granite like the main pyramid, while the other two did not progress any further than construction of the inner core.[44]

Of Pharaoh Menkaure himself, the ancient Greek historian Herodotus wrote, “[H]is justice in the decision of causes was beyond that of all the former kings. The Egyptians praise him in this respect more highly than any other monarchs, declaring that he not only gave his judgments with fairness, but also, when anyone was dissatisfied with his sentence, made compensation to him out of his own purse and thus pacified his anger.”[45] These observations are, however, based on the myth and remembered histories of

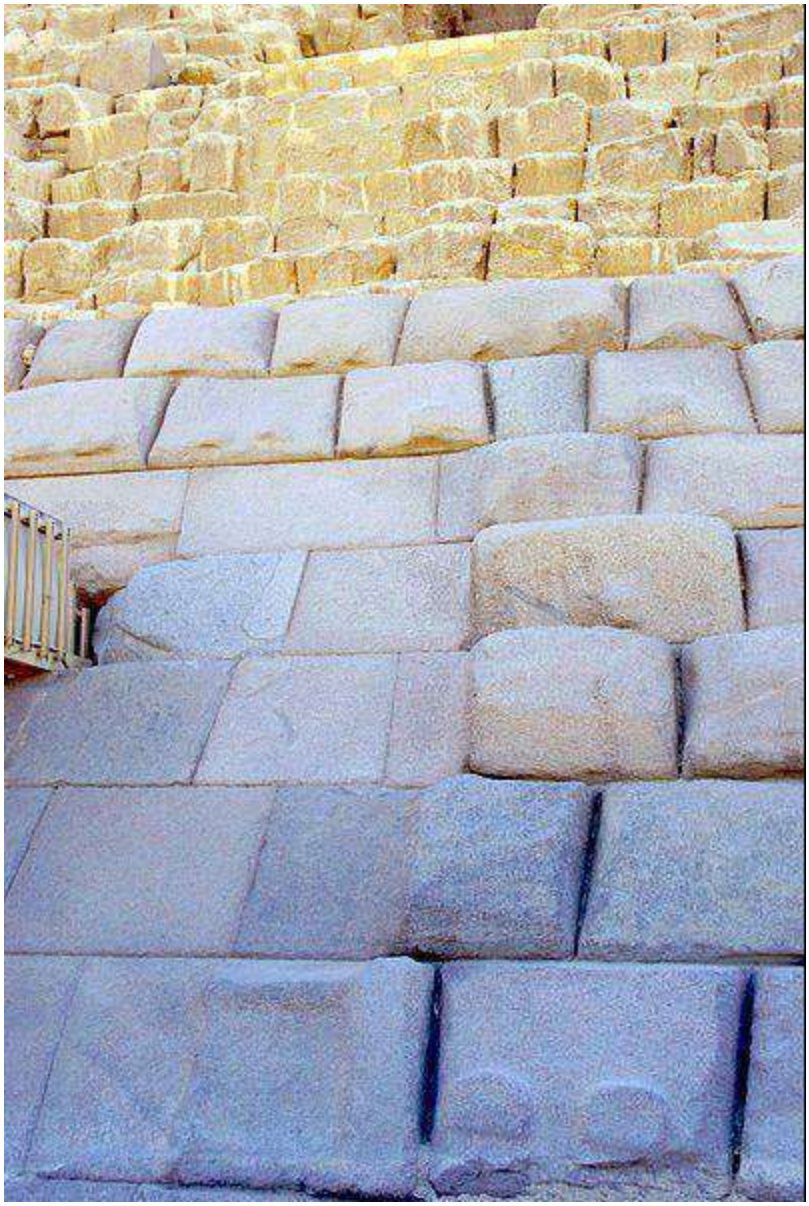
Egypt that were recounted to Herodotus during his visit to the area around 2,000 years after the Pyramids of Giza were constructed. As such, what they say about Pharaoh Menkaure says more about how he was remembered in myth and story than how he actually was in real life.

The exact date of construction for the Pyramid of Menkaure is unknown, with Menkaure's reign defined by the limited available sources and still subject to varying interpretation. Current archaeological consensus places it in the 26th century B.C. In addition to the main pyramid and its three incomplete satellites, a mortuary temple was also constructed. The temple foundations and inner core were made of limestone, while its floors were made from granite, with granite facings and granite ashlar on the walls. Locally quarried stone and brick were also used, and the temple was decorated with naturalistic style images typical of the Old Kingdom period.

It has been suggested that Pharaoh Shepseskaf, son and successor to Pharaoh Menkaure, may have finished the temple after his father’s death, using crude brick and local stone to do so. An inscription in the mortuary temple reinforces this possibility, as it refers to Shepseskaf making the temple as a monument for his father, the king of upper and lower Egypt. Statues of Menkaure were also contained within the temple.[46] Once again, the construction of the pyramid seems to suggest the Pharaoh Menkaure died before it was completed, and this seems to be corroborated by something Herodotus wrote:

> "An oracle reached him from the town of Buto, which said 'six years only shalt thou live upon this earth, and in the seventh thou shalt end thy days'. Mycerinus, indignant, sent an angry message to the oracle, reproaching the god with his injustice -'My father and uncle,' he said 'though they shut up the temples, took no thought of the gods and destroyed multitudes of men, nevertheless enjoyed a long life; I, who am pious, am to die soon!' There came in reply a second message from the oracle - 'for this very reason is thy life brought so quickly to a close - thou hast not done as it behoved thee. Egypt was fated to suffer affliction one hundred and fifty years - the two kings who preceded thee upon the throne understood this - thou hast not understood it' Mycerinus, when this answer reached him, perceiving that his doom was fixed, had lamps prepared, which he lighted every day at eventime, and feasted and enjoyed himself unceasingly both day and night, moving about in the

marsh-country and the woods, and visiting all the places he heard were agreeable sojourns. His wish was to prove the oracle false, by turning night into days and so living twelve years in the space of six."



The base of the pyramid remains visibly different than higher layers, suggesting it was unfinished.

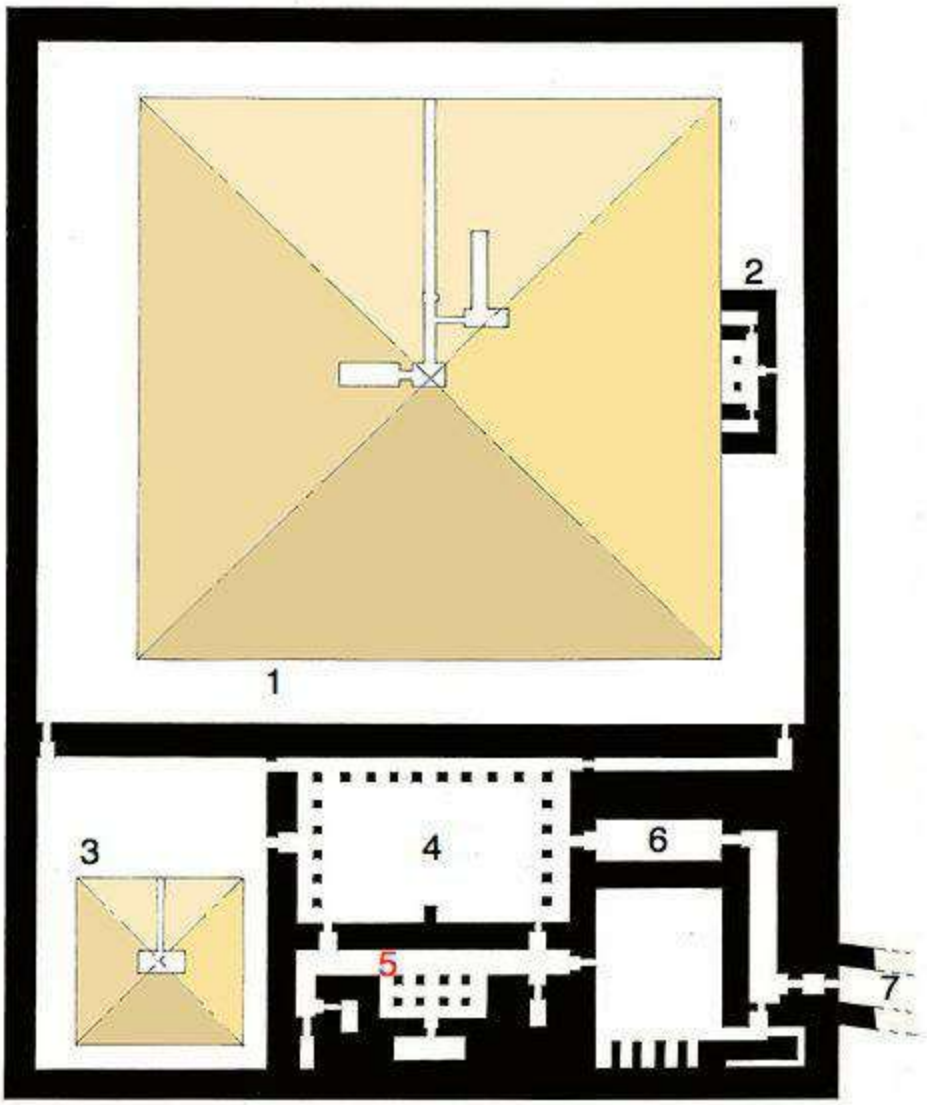
The construction and design techniques did not differ from those of the past, and these works, while continuing the tradition of pyramid building, chose to repeat past success rather than challenge possibility through new approaches. Regardless, like the writings of Herodotus, these artifacts and structures of the past continue to keep the memory of Pharaoh Menkaure

alive to this day.

Chapter 7: The pyramid complex of Userkaf (2494-2345 B.C.)

The Pharaoh Userkaf, founder of the Fifth Dynasty of Egypt, reigned from approximately 2494-2487 B.C., and like the pharaohs who had preceded him, he sought to reinforce existing power structures and ensure his memory by commissioning a series of monumental works. This included a large mortuary complex consisting of a mortuary temple, an offering chapel and a cult pyramid. It also included his own pyramid, as well as a separate pyramid and mortuary temple for his wife, Queen Neferhetepes.

As a result, the Pyramid complex of Userkaf was built around 2490 B.C. in the pyramid field at Saqqara. It was built directly to the northeast of the Step Pyramid, which had been commissioned by the Pharaoh Djoser so many centuries earlier, but unlike the Step Pyramid, the style of the pyramids located within the complex followed the general design of their immediate predecessors. Constructed from dressed stone with cores made up from rubble, the pyramids were situated in a complex of larger size, using different architecture and locations for the interior compared to those that had most recently come before it. In a sense, the Saqqara location was both new and old, as it brought pyramid construction back to the site of the Step Pyramid, a place that had not been used for pyramid complexes since.[47]



The pyramid complex: 1) Main pyramid, 2) Offering Hall, 3) Cult pyramid, 4) Courtyard, 5) Chapel, 6) Entrance corridors and 7) Causeway. Photo by Iry Hor

The main pyramid of Userkaf reached a height of nearly 175 feet, with a base of over 200 feet following its completion. Like the Great Pyramid of Giza, the sides of the pyramid ascended upward at an angle of 53 degrees, and roughly hewn blocks of local limestone were used to build up a step-like rubble core for the center of the pyramid. A rubble core meant less work during the construction phase, but as the outer shell was cannibalized for other projects and the high quality Tura limestone was taken, the inner core

was exposed to weathering and erosion. Thus, during the reign of Ramesses II, some 1,500 years after the construction of the pyramid complex of Userkaf, it underwent some restoration works. The complex was also used during the Saite period as a cemetery, sometime between 664 B.C. and 525 B.C.

The ongoing removal of the limestone exterior meant that the rough rubble interior continued to degrade over time, and the main pyramid of Userkaf was eventually left in ruins. Today, there is little left to mark its existence apart from a conical hill in the pyramid field at Saqqara. The pyramid came to be known locally as El-Haram el-Maharbish ("Heap of Stone") due to its dilapidated state of repair. The pyramid of the queen was likewise ruined by the same process, leaving its funerary chamber exposed and leaving the once grand pyramid resembling nothing more than a mound of rubble.[48]

The ruins of the pyramid of Neferhetepes

Excavation was undertaken at the complex by a variety of archaeologists, from Orazio Marucchi as early as 1831, through to John Shae Perring and Richard Lepsius. Identification of the commissioning pharaoh was

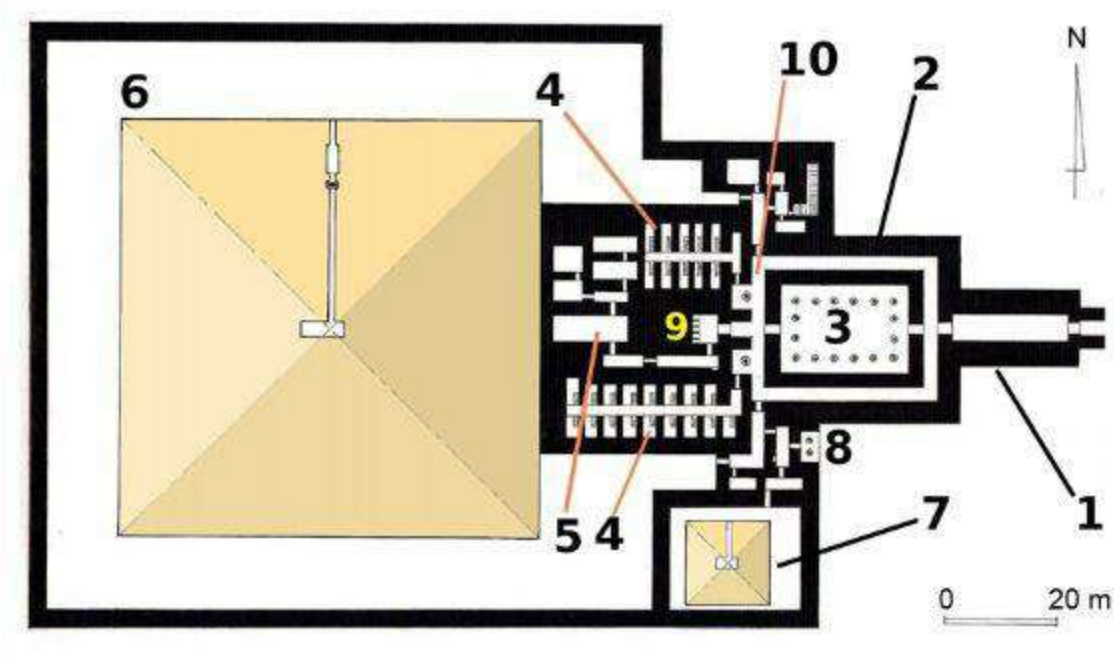
determined when a colossal red granite head of Userkaf was identified in the archaeological deposit at the site.[49] Despite a grand design and intentions toward longevity, the pyramid complex of Userkaf is a lesson on the effects of time and the ravages of those that follow, with the impressive pyramids of the past ultimately reduced to rubble and sand.

The dilapidated pyramid of Userkaf with the Step Pyramid in the background

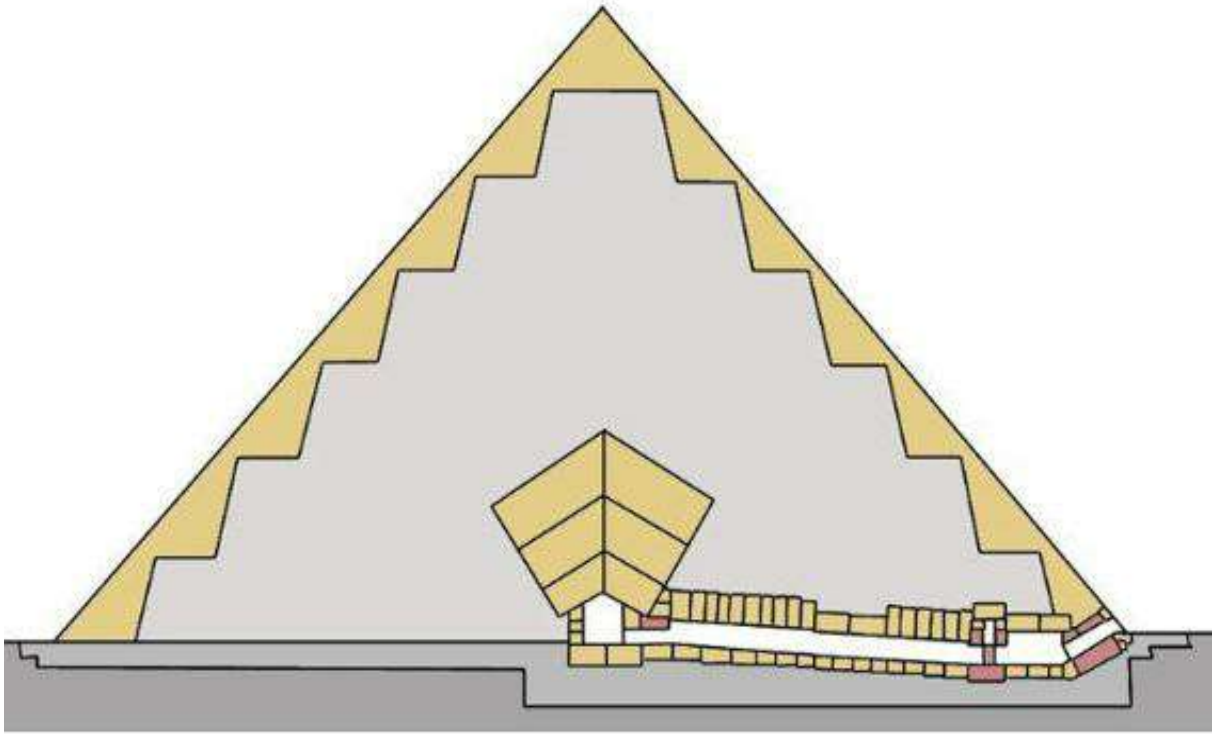
Chapter 8: The Rising of the Ba Spirit of Sahure (2487–2477 B.C.)

Another pyramid placed in a different location than usual was the Pyramid of Sahure, the first to be constructed in the necropolis of Abusir on the shores of Abusir Lake. The area was relatively undeveloped at the time, whereas Saqqara had become highly developed with mortuary complexes by this time. Its commissioning pharaoh, the second of the Fifth Dynasty, saw his works completed around 2480 B.C.

Like Pharaoh Userkaf before him, Sahure commissioned his pyramid as part of a larger mortuary complex. The complex also included a temple, a causeway, and a separate cult pyramid for the Ka of the king, in addition to the main Pyramid of Sahure. The Ka was an Egyptian concept of a person's vital essence, in today's terms roughly translating as one part of a person's soul. The complex was known in ancient Egyptian as The Rising of the Ba Spirit of Sahure. The layout of the complex was of a high standard and would come to set the model for those that followed. Construction also consisted of a high quality selection of raw materials, including alabaster and basalt floors, fine limestone and red granite for the walls. The causeway was highly decorated, and finely wrought reliefs were used throughout the complex. The necropolis of Abusir would continue to be used after Sahure's construction up until at least the Saite period 2,000 years later, an incredible longevity for a pharaoh's works being used as active ongoing parts of Egyptian life and culture.[50]

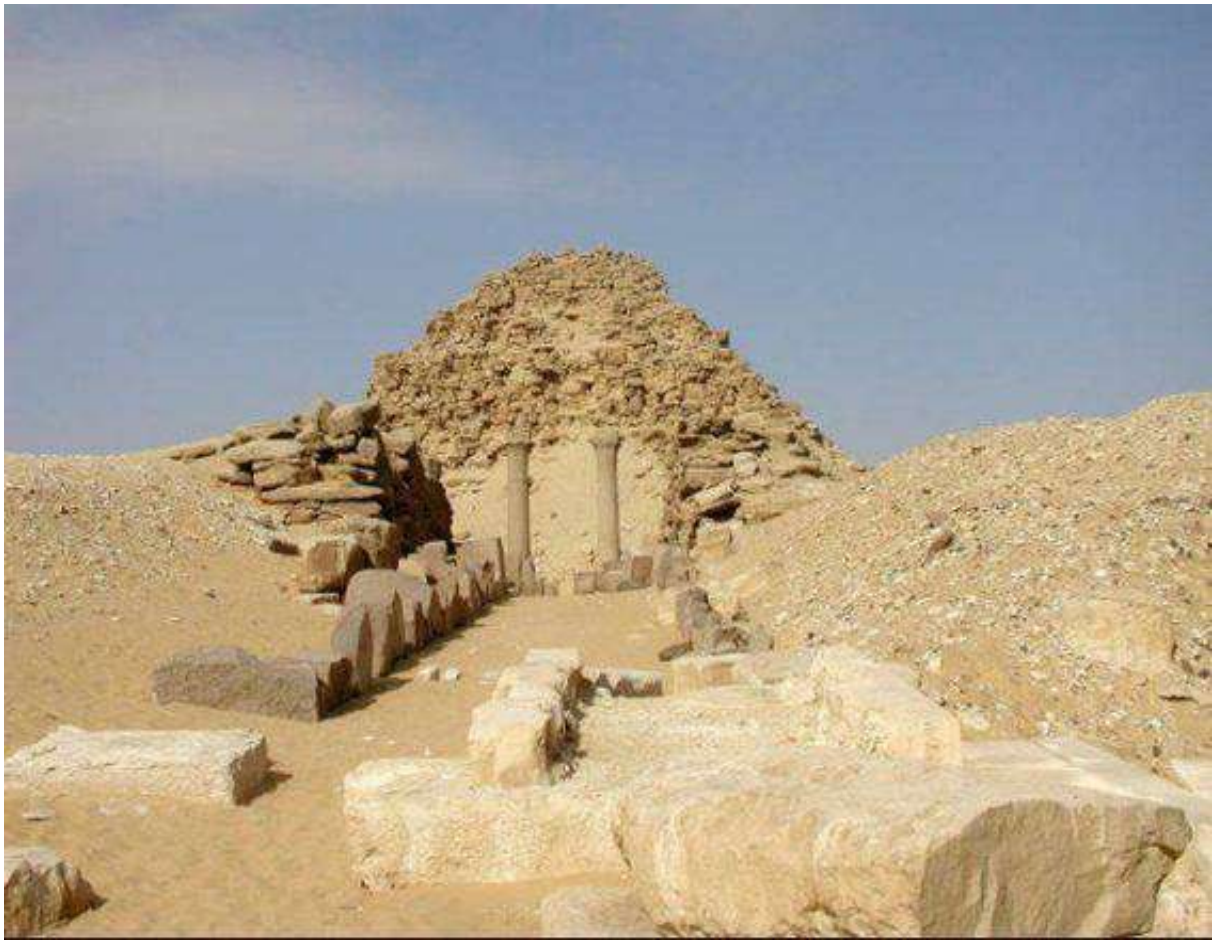


The complex's layout: 1) Entrance hall, 2) Closed corridor, 3) Pillared courtyard, 4) Magazine rooms, 5) Sacrificial chapel, 6) Main pyramid, 7) Cult Pyramid}, 8) Side entrance, 9) Five niches chapel, 10) Transverse corridor. Photo by Iry Hor



The layout of the pyramid

In the building of the area, a greater emphasis was placed on the decoration and construction of the mortuary temple, whereas previous works had often focused primarily on the pyramid. At less than one third of the height of the Great Pyramid of Giza, the Pyramid of Sahure was clearly not intended to be among the largest of Egypt's structures. Unlike the pyramids that had preceded it, it was not built on bedrock but was rather formed on a constructed platform made of two thick layers of limestone blocks. However, due to an error during construction, the pyramid itself was actually distorted, with the southeast corner of the pyramid located about 5 feet too far to the east. The distortion is visible on the eastern side of the pyramid, but the ancient builders managed to largely conceal this through careful placement of the adjacent mortuary temple.



The pyramid of Sahure

One construction technique utilized in this structure which is also common to all pyramids of the Fifth Dynasty is the use of a T shaped ditch beneath the superstructure of the temple. The digging of such a trench allowed for access

during the ongoing work and is usually filled in with rubble following the completion of the structure. This can be seen directly in the case of the Pyramid of Neferefre, which was left unfinished with the T shaped ditch visible to investigation.[51]

Like so many other of Egypt's great monumental works, the Pyramid of Sahure was heavily damaged by later generations taking and reusing its limestone exterior. At the time of its completion, it is estimated that the pyramid measured over 150 feet in height with a base of nearly 250 feet in length. The core of the pyramid was made up of low-grade roughly hewn limestone blocks predominantly sourced from local quarries, with the spaces between the blocks filled in with mortar and rubble. The blocks were laid in six horizontal layers clad in a white limestone finish.[52] As in the case of the pyramid complex of Userkaf, this construction technique led in time to the ruination of the pyramid, because the removal of its exterior exposed a rubble interior that was highly susceptible to erosion over time.

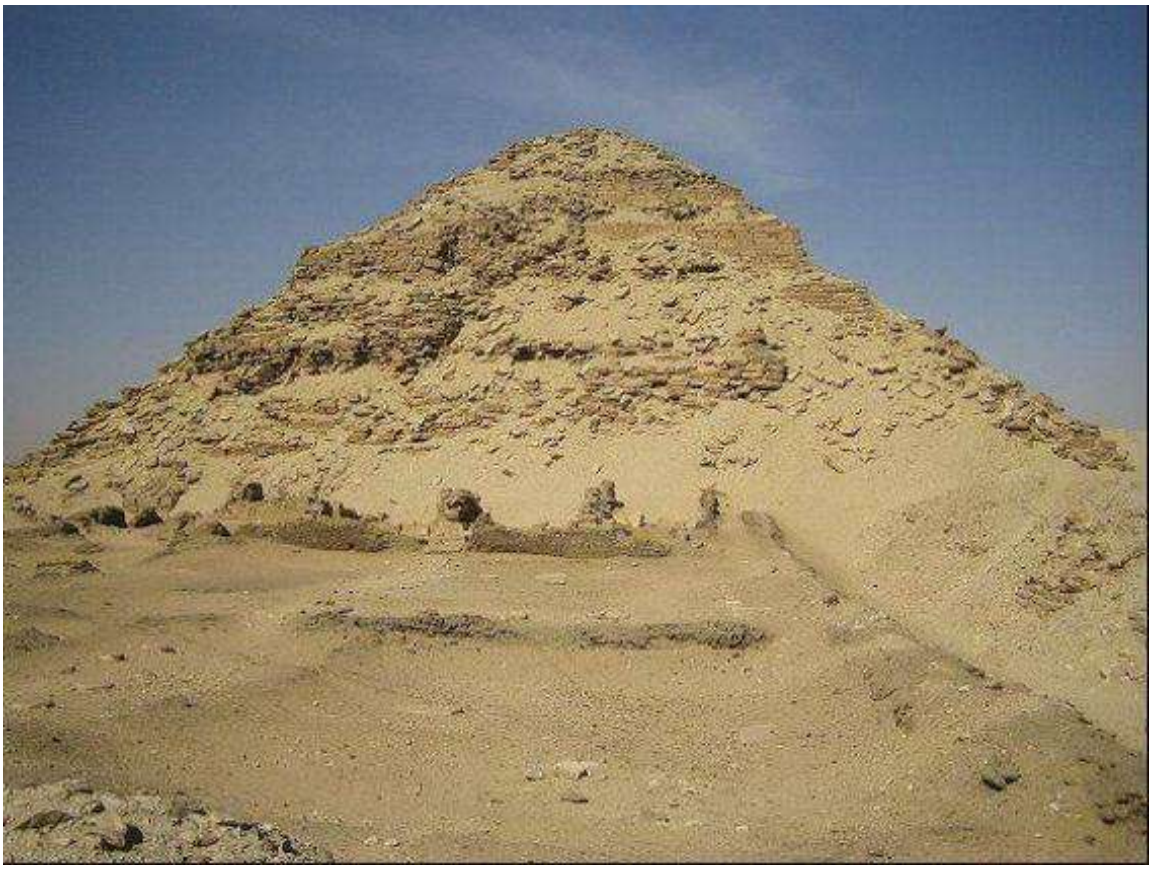
In the southeastern section of Sahure's pyramid complex, there was also a small cult pyramid. This type of pyramid had generally been erected during the Old Kingdom as tombs for the Ka of the deceased ruler, Like the main pyramid, the cult structure has also been damaged over time after the exposure of its rubble core.

A damaged relief from the complex depicted Sahure as a sphinx

Chapter 9: The Ba of Neferirkare, Beautiful is Djedkare-Isesi and Perfect are the Places of Unas (2477-2345 B.C.)

The Pyramid of Neferirkare (also known as The Ba of Neferirkare) was erected at the necropolis site of Abusir, located to the south of Egypt's Giza plateau. The tallest of all the pyramids constructed during Egypt's Fifth Dynasty, it reached an estimated height of nearly 250 feet when first completed.

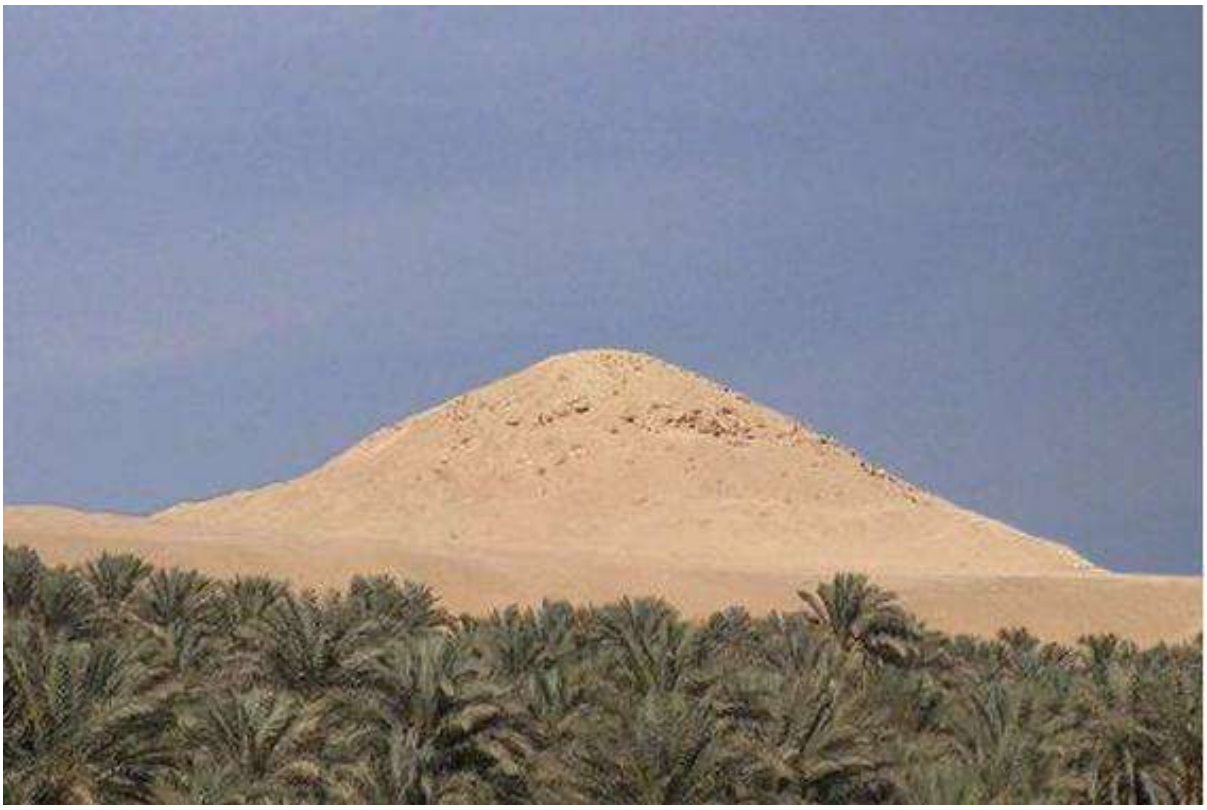
The pyramid, although commissioned by Pharaoh Neferirkare Kakai, was not completed before his death. Estimated as having reigned for approximately 20 years, Neferirkare Kakai was the third Pharaoh of Egypt during the Fifth Dynasty. His name means "Beautiful is the Soul of Ra", his Horus name was Userkhau, his Golden Horus name was Sekhemunebu, and his Nebti name was Khaiemnebty. Although the 20 year estimate of his reign is generally accepted, available archaeological material has evidence only up to the fifth year of his reign, and Egyptologist Miroslav Verner argues against longevity for his era based on the incomplete nature of his pyramid.[53]



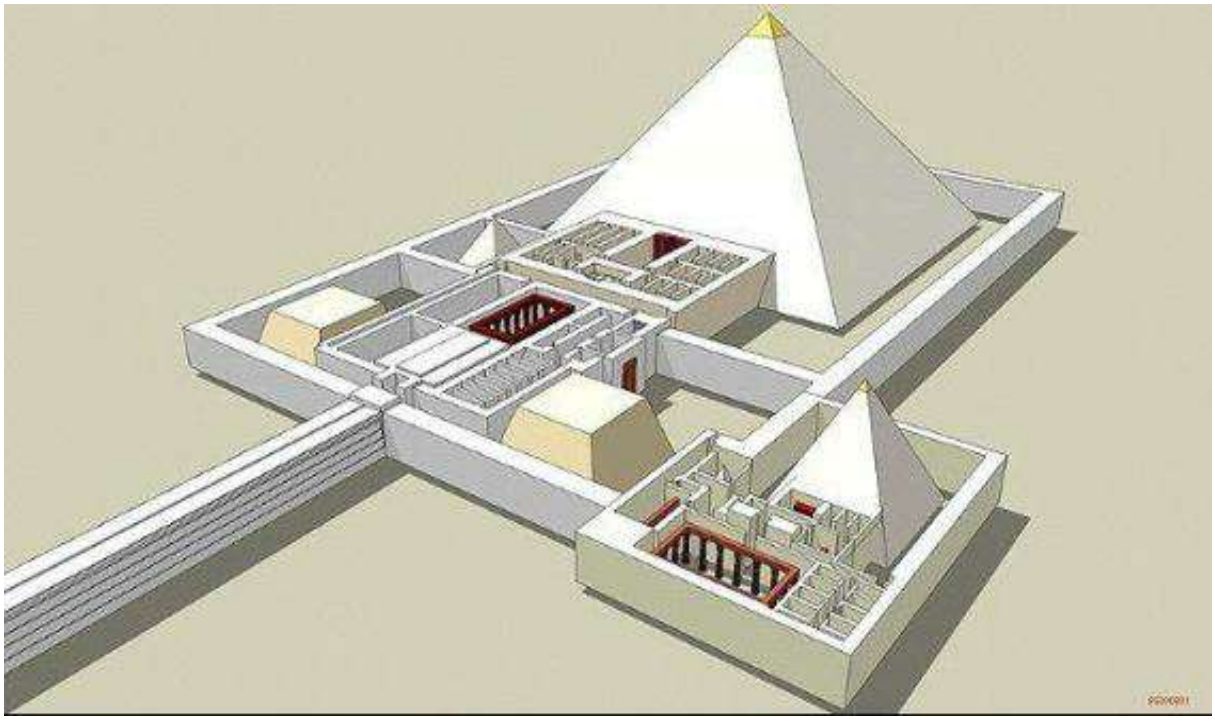
The pyramid of Neferirkare

Little else is known about this pharaoh’s reign. It has been suggested that the annals in the Palermo stone could have been compiled during his reign, and it is known that taxation was imposed on everybody as a general rule during his era. An important cache of papyrus records from the Old Kingdom administrative center, known as the Abusir Papyri, contains a letter from Djedkare to temple priests about providing the necessary provision for Neferirkare's funerary temple.[54] Like so much of ancient Egypt, while data is lost, enough remains in the landscape to give clues about Egyptian life during that era.

Another Fifth Dynasty pharaoh who commissioned the construction of a pyramid was Djedkare-Isesi, reigning for around 32 years before dying in his 50s. His body was buried in a dark grey basalt sarcophagus in a chamber of the pyramid he built, named by him as Beautiful is Djedkare, nicknamed by local residents in modern times as the Sentinel. Unlike Pharaoh Neferirkare Kakai, Djedkare-Isesi chose Saqqara as the location for his pyramid, making him the first pharaoh to build funerary architecture to the south of the existing Saqqara necropolis. With a stepped core six layers high and an original height of over nearly 175 feet at the time of completion, this pyramid was another comprised of limestone blocks. Its length was nearly 250 feet per side, with the degree of ascent on each side measuring 52 degrees, the same degree the Bent Pyramid had tried unsuccessfully to use before being forced to alter the angle near its apex.[55]



The pyramid of Djedkare-Isesi



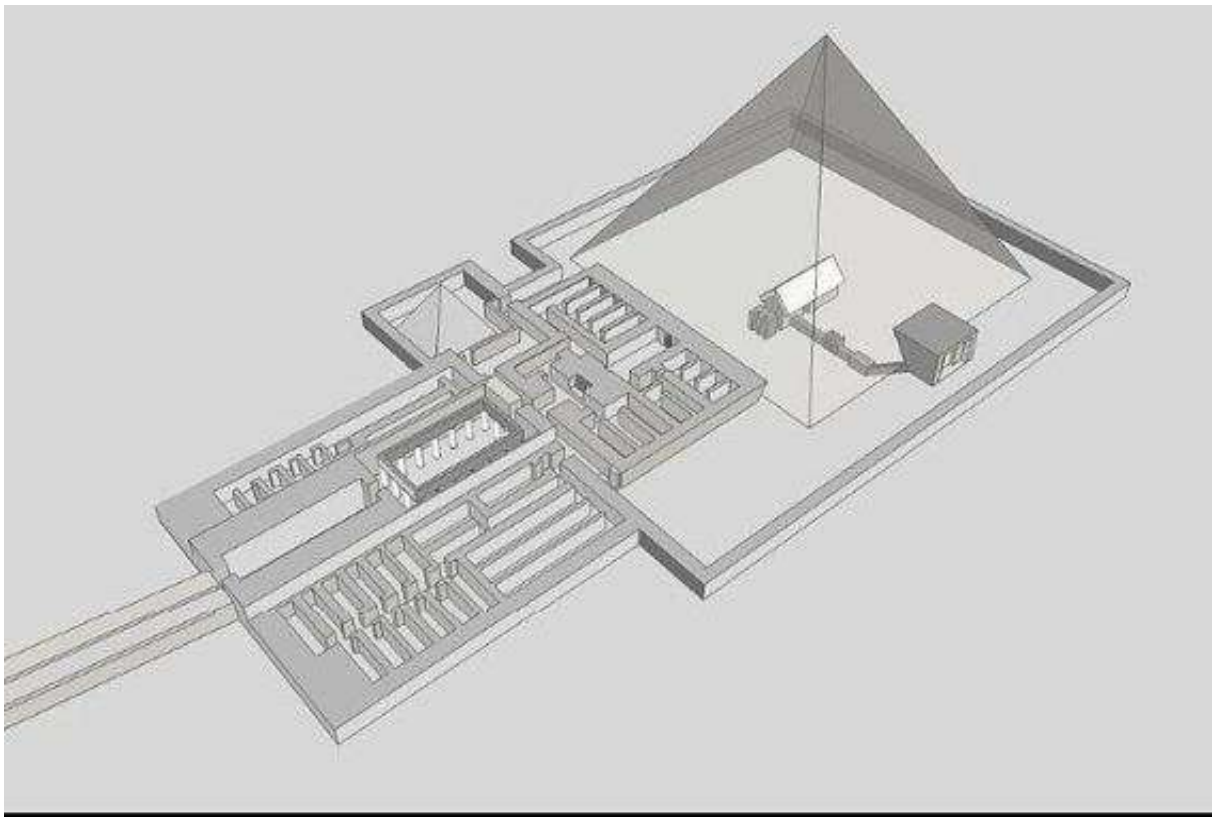
Computer generated layout of the complex

As with previous pharaohs, the focus was not solely on the main pyramid

but on an entire complex made up of various structures. In addition to the main pyramid, there was also a satellite pyramid, and another pyramid most likely dedicated to the pharaoh's consort. Since the identity of Pharaoh Djedkare-Isesi's consort is unknown, the structure has been romantically named in modern times as "The Pyramid of the Unknown Queen".[56]

The issue of tomb robbing by the fifth dynasty period is evidenced in the design of this pyramid structure. It incorporated three large portcullis slabs as countermeasures to such robbery.[57] There is even documentary evidence recorded of these ancient thieves, such as one stating, "[W]e went to rob the tombs in accordance with our regular habit and we found the pyramid of King Sekemre-shedtawy. We took our copper tools and we broke into this pyramid through its innermost part. Then we broke through the rubble and found the pharaoh lying at the back of his burial place. The noble mummy was completely bedecked with gold, and his coffins were adorned with gold and silver inside and out and inlaid with all sorts of precious stones."[58] The punishment of this historic confessor is not on record, but punishments were known to be severe, including the mutilation of noses and ears. Sometimes, the guilty party was placed on a stake.[59] Even with harsh penalties for those caught, and the countermeasures Pharaoh Djedkare-Isesi added to his burial chamber, it all inevitably proved unsuccessful. By the time archaeologists came to examine the pyramid, its burial chamber had long ago been plundered.

Also building on the pyramid field at Saqqara was the Fifth Dynasty Pharaoh Unas. The pyramid was originally dubbed Beautiful are the places of Unas. Constructed in close proximity to the Step Pyramid constructed under Djoser at Saqqara, Unas's pyramid complex also featured a causeway around nearly half a mile in length that followed the edge of a natural wadi feature. The causeway ceiling was covered, and its walls were decorated with intricate and beautifully colored relief images. There were also a number of mastabas located to the northeast of the main pyramid, holding the remains of the pharaoh's consorts.



Layout of the complex. Photo by R.F. Morgan

As builders had done for many years, Unas's construction crew liberally borrowed material from the nearest pyramid neighbor: Djoser's Step Pyramid. Furthermore, material from his complex was put to use in a new context by plugging holes and gaps in the wadi located immediately adjacent to Unas's causeway. Ironically (and at least somewhat fittingly), the same kind of masonry plundering eventually took place on Unas's pyramid as well, exposing the core and leading to its inevitable deterioration. Today, the once grand pyramid has been so severely weathered that it now looks more like a natural hill feature than a pyramid structure. The burial chamber was also plundered long ago, but when excavations took place, archaeologists found it still contained some remnants, including a skull, right arm and shin. Whether or not these body parts once belonged to Unas is uncertain.[60]

The pyramid of Unas

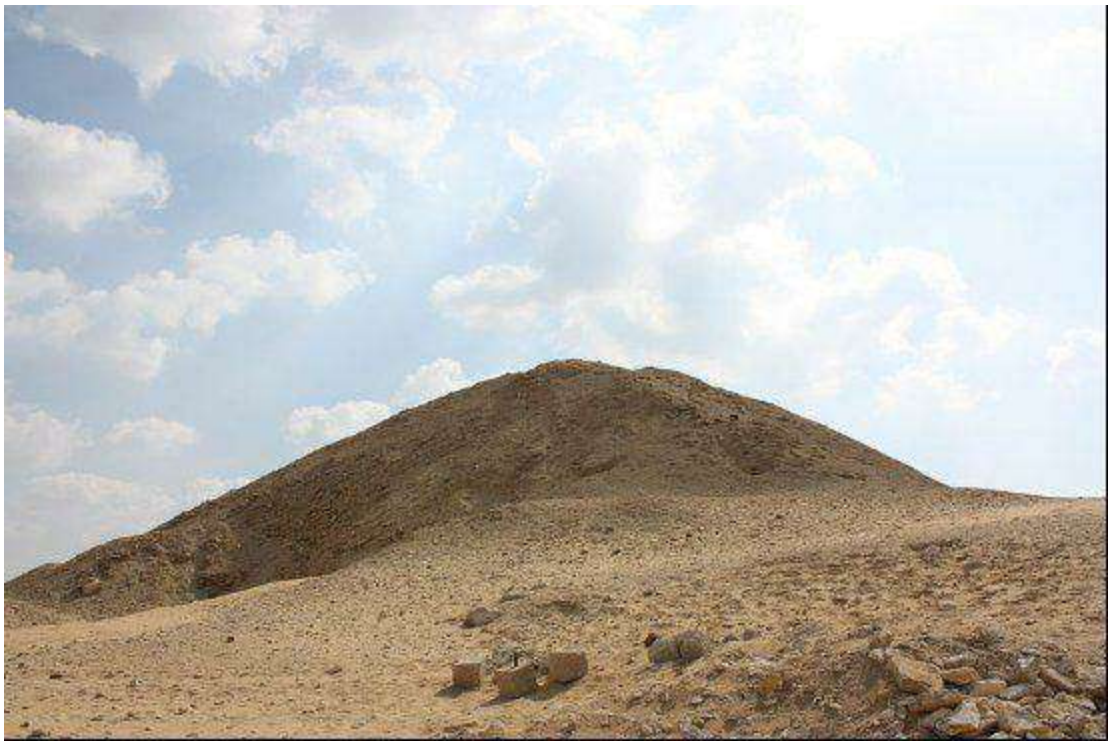
Unas's tomb contained inscriptions written in a Semitic dialect, the earliest written examples of this. Texts now known as Pyramid Texts were used to cover the walls of the burial chamber, and this was the oldest example Egyptologists have found. This led to a development of the concept of magic in relation to tombs, with the notion of spells being inscribed on the walls assisting in the pharaoh's journey in the afterlife. This in turn led to the Coffin Texts being developed later in the Middle Kingdom Period, and then the Book of the Dead from the New Kingdom era to the Ptolemaic Period. [61] This notion of magic inscriptions also played a part much later in history through pop culture's fixation on the idea that the pharaohs' mummies had curses. The idea that grave robbers and archaeologists suffered from these kinds of curses remains popular even today.[62]

Chapter 10: The Final Pyramids (2345-1292 B.C.)

The tradition of pyramid building in Egypt was a long and illustrious one, starting with the Step Period sometime between 2667-2648 B.C. As with all things, however, it would eventually come to an end, with one small pyramid constructed sometime around 1292 B.C. being the last one built in Saqqara. The last of the pyramids were not as large or grand as their predecessors, and in many cases they have not stood the test of time as well.

The Pyramid of Teti, ironically named Teti's Places Are Enduring, is one of these. The pyramid appears to have been modeled closely after the pyramid of Djedkare-Isesi and is situated in a complex with corresponding funerary temple, satellite pyramid and two smaller pyramids dedicated to Teti’s queens. The original height of Teti’s Pyramid was over 150 feet, and its base sides measured nearly 250 feet each.

However, as with others whose smooth-sided limestone casings were removed, the exposed substructure of the pyramid eroded badly. The central core was composed of locally sourced materials made up of stone and debris piled in steps of a rubble formation. The exterior was finer, made of dressed limestone, but as in previous cases, this sought after material was not destined to remain in-situ forever. The pyramid now looks more like a small hill than an ancient edifice of grandeur, its exterior removed and internal core slumped, but beneath ground level its chambers and passages remain comparatively well preserved.[63]



The pyramid of Teti

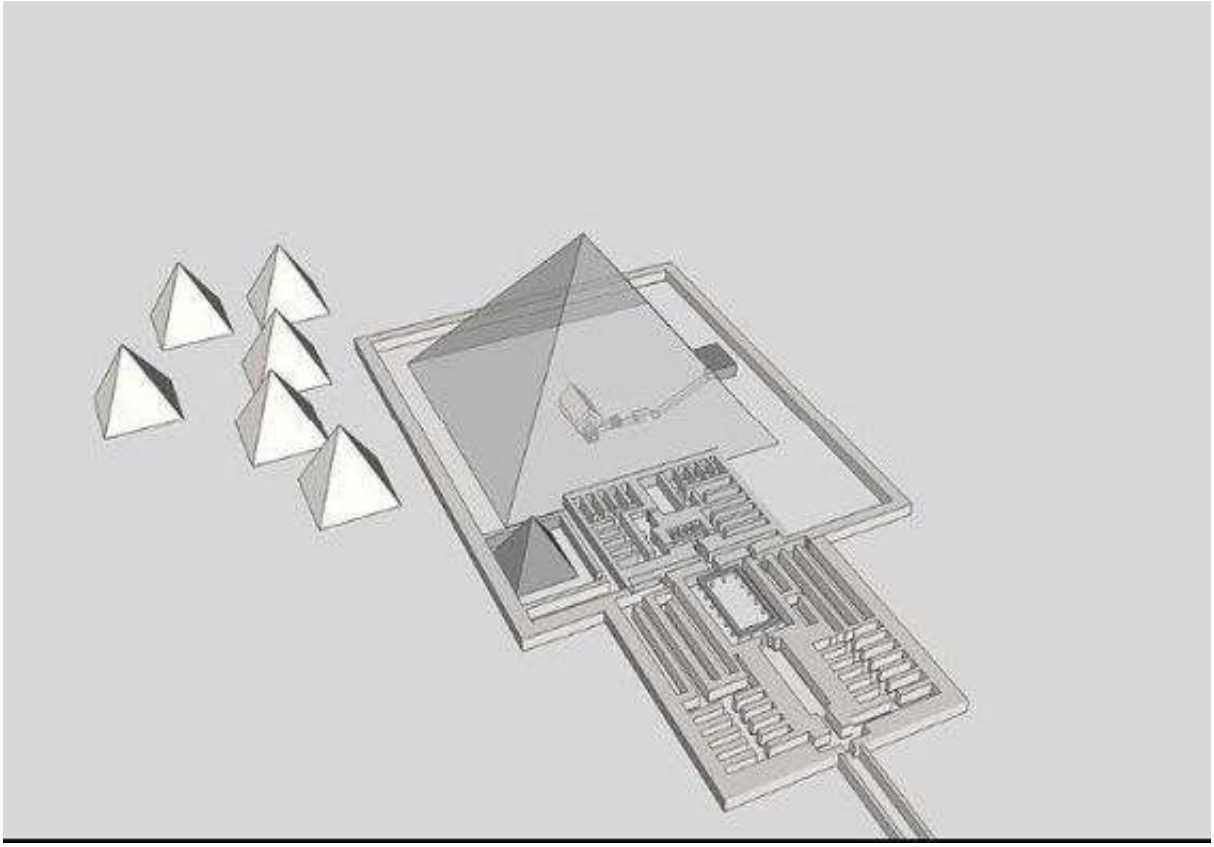
The burial chambers constructed beneath the pyramid were accessed through a descending passage and long corridor, which were blocked by debris to stop potential tomb robbers, topped by a granite plug. Rooms within the burial chamber area included two hallways, an antechamber, a corridor, a vestibule, and a bedroom with harrows spanning about 20 feet. Limestone and granite were both used in the construction of these chambers, and the burial chamber itself was covered with large vaulted rafters and contained an unfinished greywacke sarcophagus, a fragment of a lid and a canopic container. Pharaoh Teti’s burial chamber also contained pyramid texts, like Unas’s before it.

The burial chamber had been looted in ancient times, but when archaeologists came to excavate the area, they found the remains of the king's grave goods still there. These were predominantly stone materials, including club heads with the names of Teti and a plaster mould death mask. The mould shows a man with eyes closed and a slightly open mouth. This image of Teti is the only physically accurate royal portrait from the Old Kingdom period.[64]

Text inscriptions found in the burial chamber

The sarcophagus of Teti. Photo by Jon Bodsworth

Other examples of the final pyramids built in Ancient Egypt include the mortuary complex of Pepi I and the pyramid of Pharaoh Qakare Ibi. The Pepi I complex was built in Saqqara and contained 10 smaller pyramids for the queens and family of this pharaoh, many of which included pyramid texts. Pepi I's main pyramid measured nearly 175 feet in height and a base length of nearly 250 feet. Locally quarried stone was used for the core, with white limestone coating the exterior and inner chambers formed by a pit and ramp method seen in other Fifth Dynasty pyramids. Unfortunately, like other Fifth Dynasty pyramids, its limestone exterior was removed and used for new building projects, leading to the eventual deterioration of the exposed core. [65]



Model of the complex. Photo by R.F. Morgan

Pharaoh Qakare Ibi was the third ruler of the eighth Dynasty of Egypt, reigning during the First Intermediary period. His name meant mighty and strong, but his true influence may have been limited to only part of Egypt, where he ruled from his seat in Memphis. His pyramid was a small one located in the south of Saqqara, and pyramid texts listed in his burial chamber suggest his short reign lasted around four years.

Located to the northeast of Shepseskaf's tomb and close to the causeway of the pyramid of Pepi II, it is an unassuming end to a period of grandeur that would not return. A small chapel was built nearby, but there is no evidence of a causeway or valley temple having been built. Some have even argued that the pyramid itself may have been originally intended for one of Pepi II's queens, and that it was appropriated by Qakare Ibi due to his own necessity. Around 100 feet on each side and about 70 feet high with a gradient of around 53 degrees at the time of its construction, the monument is now a 10 foot high pile of broken limestone and mud.[66] Pharaoh Qakare Ibi's pyramid was the last to be built in Saqqara, ending a long era of construction there by the rulers of Egypt.

While the pyramids of Egypt are an enduring legacy of the past, with the Great Pyramid of Giza still standing as strong today as it did when first listed as one of the Seven Wonders of the Ancient World, there are just as many other monuments that have fallen victim to the vagaries of time. "I met a traveler from an antique land," Percy Bysshe Shelley famously wrote, continuing:

"And on the pedestal these words appear:
'My name is Ozymandias, king of kings:
Look on my works, ye Mighty, and despair!'
Nothing beside remains. Round the decay
Of that colossal wreck, boundless and bare
The lone and level sands stretch far away."[67]

The poem, like Egypt itself, reminds readers that while the past lives on, there are parts of it that will be forgotten, swallowed by the shifting sands of time. It is the job of the historian and archaeologist to sift those sands and reconstruct and understand the past. In the case of the pyramids, there are many of them that require this kind of work, because they have been reduced to slowly collapsing ruins and mere shadows of their former selves. Of course, there are also many that still speak for themselves and continue to catch the attention of the contemporary world. The pyramids may not be quite as luminous as they were in the past, but many of the relics still remain, serving as haunting beacons of the ancient world shining underneath Egypt's bright sun.

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The Great Sphinx of Giza

Chapter 1: The Riddle of the Sphinx

The mythology of the creature known as the Sphinx is as well known today as it was in the ancient world. A strange creature with the body of a lion and the head of a human, it features prominently in the story of Oedipus in Greek mythology, as depicted by Sophocles in the 429 B.C. play Oedipus Rex. The most common version of the story tells of how Hera, wife to Zeus and chief matriarchal figure amongst the Greek pantheon, ordered the Sphinx to leave her homeland in Ethiopia and journey to Thebes in Greece.

The Sphinx in the Greek tradition was a female creature, her human face looking out from atop the body of a lion, adorned by the wings of a great bird, unfolding and stretching upon her leonine back. Once settled by the roadside outside the gates of Thebes it was the task of the Sphinx to test travellers by asking them riddles. Those who could answer correctly were allowed to pass on into the city, while those who failed the test were condemned to die, devoured in the jaws of the great mythological beast. For a time it seemed that none could best the creature, her riddles unable to be solved, and the gateway to Thebes remained impassable to travellers, but that all changed when the Greek hero Oedipus arrived. He strode down the road, a masterful man of powerful visage, his footsteps sure as he made his way resolutely toward his destination. He could see the gates of Thebes ahead, his destination within reach, but it was then that the vast and terrible creature that rested by the roadside reared up beside him. The Sphinx made her challenge clear but Oedipus was unshaken in his resolve. Defiantly he stood ready, waiting for her questions, ready to answer.[68] The malevolent face of the Sphinx smiled as she boomed out her first riddle:

“There walks on land a creature of two feet, of four feet, and of three; it has one voice, but, sole among the animals that grow on land or in the sky or beneath the sea, it change its nature; nay, when it walks propped on most feet, then is the speed in its limbs less than it has ever been before.”

“Man,” Oedipus replied confidently, “in infancy creeping, in maturity erect, in old age walking feebly with a staff.”[69]

Undaunted, the Sphinx continued with her second riddle, demanding to know: “There are two sisters: one gives birth to the other and she, in turn, gives birth to the first. Who are the two sisters?"

“They are day,” Oedipus answered, “and they are night.” Both times he

had answered correctly, something that none had managed to do before. Frustrated and defeated, the Sphinx set upon herself in fury, tearing at her own body, devouring herself until there was nothing left. In other versions of the tale she climbed to a high place and threw herself down, breaking her body asunder upon the sharp and jagged rocks below.[70] The old ways of the Sphinx had been destroyed and the road to Thebes was clear once more, clear for the new Olympian gods, as represented in this story by the hero Oedipus.

The story of the Sphinx's riddle is about the old being supplanted by the new, and as much as it is a part of Greek mythology, it is made very clear that the Sphinx is not a member of the Greek pantheon of gods. Rather, it is something older and stranger, a final relic of an ancient and distant land. The etymology of the word "sphinx" bears the story of Greek intention in it as well. A Greek word, it either derives from the verb meaning "to squeeze" or is a Greek corruption of the Egyptian name "shesepankh", meaning "living image". Either way, the origin of the mythological creature points to Egypt, the word referring to the image of a statue there, having been carved from a single stone, an image squeezed from the living rock. At least, this is the interpretation presented by historian Susan Bauer,[71] who points to the origin of the myth being the monumental statue which remains today one of the most famous images of the ancient world – the Great Sphinx of Giza.

Naturally, the Egyptians who carved the statue would not have used the word Sphinx to describe it, as the mythology of Egypt was very different from that which would develop around the changing iconography of later cultures and eras. The Great Sphinx of Giza for the Egyptians who carved it was part of a tradition of protective sentries, carved to watch over the tombs of the dead. Guardian statues were usually associated with the sun god Re and often had the image of the current pharaoh carved into them. It is for this reason that most scholars have long assumed the Sphinx's face represented the ruler who oversaw its construction.

As such, there are examples of both male and female sphinxes being produced in ancient Egypt. The Pharaoh Hatshepsut had her likeness carved upon numerous sphinx bodies, and her granite and alabaster statues are currently held in the permanent collections of museums from New York to Memphis. In Thebes, approximately 900 sphinxes were carved with ram heads to honor the god Amon. Sphinx statues came to feature atop stairwells

in complexes, along avenues leading to temples and outside of tombs.[72]

A small sphinx statue of Hatshepsut

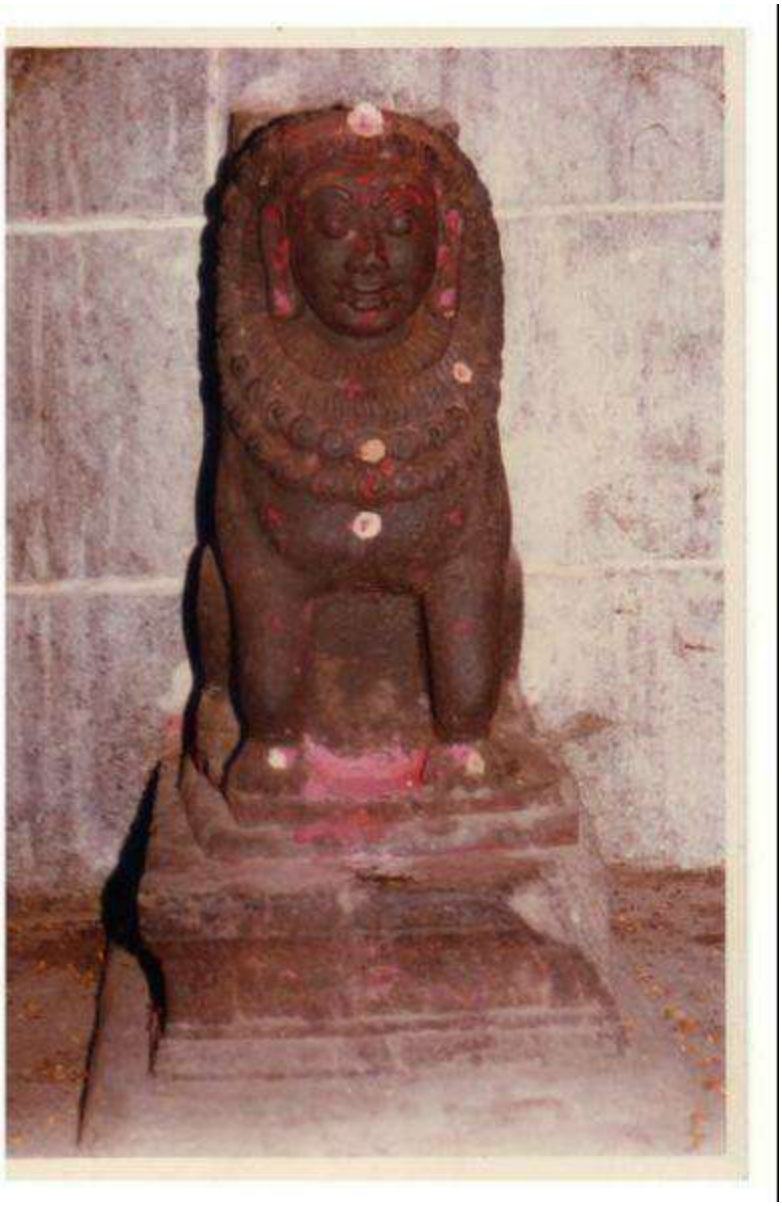
The earliest version of the creature that would come to be known as the Sphinx has been attributed to Hetepheres II and dated to around the fourth dynasty of Egypt. Currently held in the permanent collection of the Cairo Museum in Egypt, this statue was composed of painted limestone and found at the site of the pyramid of Pharaoh Redjedef (or Djedefre) at Abu Rawash. The physical likeness was based on Hetepheres II, who was both half-sister and wife to the Pharaoh Redjedef (Djedefre), thought to be the successor of Pharaoh Khufu and predecessor to Pharaoh Khafre (his younger brother).[73]

What the origin was of this design, of a lion body with the head of a human, is unknown, but it would come to be a recurring motif that proliferated out of Egypt and spread across multiple other cultures around the world. There was even a winged Sphinx located on a wall frieze at the palace of Darius the Great, ruler of the Persian Empire. That version depicted a lion body, bearded male face and wings, located at Susa and dating to approximately 480 B.C.

Scholars believe this is a Sphinx statue of Hetepheres II that dates back to the 4th Dynasty (circa 2723-2563 B.C.)

An ancient Persian wall carving depicting a winged Sphinx from the palace of Darius the Great

Ancient Greek marble statue of a sphinx from the 6th century B.C.



An Indian sphinx that stands guard at the entrance of the Shri Shiva Nataraja temple

Chapter 2: Construction and Reconstruction

The Sphinx continues to be a recurring motif in imagery of the past and is utilized regularly to this day. Its replication on stamps, coins and other such nationalistic documentation for Egypt however, has more to do with one Sphinx in particular: the monumental statue located near Cairo that stands as such a poignant illustration of the ancient world. Of all the sphinxes throughout Egypt, the most famous of all was and is the Great Sphinx of Giza, a monumental statue that has become a renowned part of the landscape of Egypt's past and present, positioned as it is before the line of pyramids that stretch off into the desert. This Sphinx, unlike the Greek mythological version, has the face of a man rather than a woman. To trace the reasons for this however, one must look not to the stories of Greek mythology but to the history and archaeology of ancient Egypt.

The Great Sphinx of Giza is located on the Giza Plateau on the Nile's western bank, near Cairo. It is placed next to the Great Pyramid of Giza, below the pyramids, facing toward the east. The date of construction for this iconic feature remains a debated topic in contemporary Egyptology, but the most accepted period for construction is cited as during the reign of the Pharaoh Khafre, whose face it is reasoned was used as the basis for the physical features of the Sphinx's own face. Although this is still debated, the evidence used to justify it includes the placement of Khafre's own tomb, close to the Great Sphinx, and that computer reconstructions of the face of the monument align with other images of Khafre found in the archaeological record.[74]

Panorama of the Sphinx with the Great Pyramid at Giza in the background

As befitted a culture whose religious focus was on the afterlife, funerary

customs expanded in complexity and ceremony just as the houses for the dead became monumental features of the landscape, serving as veritable mansions for the beloved departed. The greatest of these structures were to be the province of the richest and most powerful – the rulers of Egypt themselves. The Great Pyramid of Giza is perhaps the best known of all these monuments, a mountain of stone built upon the west bank of the Nile to house the mortal remains of the Pharaoh Khufu. It is estimated that this structure, one of the Seven Wonders of the Ancient World, was commissioned by the pharaoh around 2575 B.C, early on during his 23 year reign. The work was so great that it absorbed much of Khufu's period as pharaoh to see it completed. With approximately 2,300,000 stone blocks of roughly 2,500 kilograms, each laid out in a geometrically precise design, it is a stunning piece of monumental architecture and an outstanding technical building achievement. It is important to note however, that the pyramid as it looks in present day was not how it looked upon completion at the end of Khufu's reign. At that time, limestone blocks were used to form its outer edges, meaning that it would have shone brightly in the light of the sun, a dazzling reminder after internment of the great pharaoh so recently departed. [75]

The next pharaoh was Khufu's son Khafre (also spelt Khafra, Khefren or even Chephren in the Greek tradition), who followed his father's example in building a pyramid for his own mortal remains. Khafre also created something unique in that landscape of Egypt that no other pharaoh had done before or would do after. It is believed that during the building of the Great Pyramid of Giza all local rock outcrops would have been utilized as sources of raw materials for manufacture. Nearby both the Great Pyramid of Giza and the location of Khafre's own chosen resting place was a remnant outcrop, left over from the work of stonecutters busily scouring the landscape to create suitable building materials for the monumental works ordered by the pharaoh.

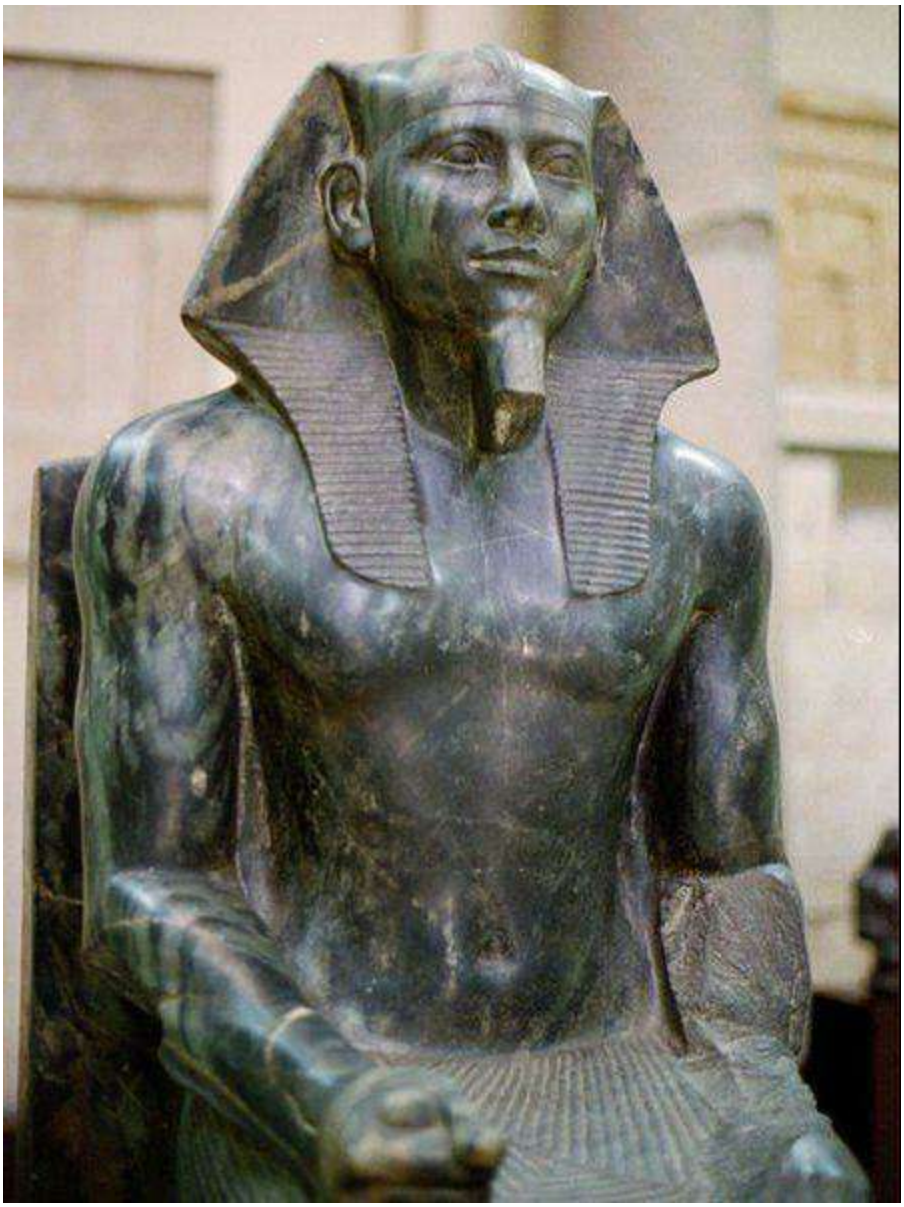
However, rather than have it utilized for further stone blocks, Khafre had another idea altogether. He ordered that the outcrop be reshaped into the embodiment of a mythical creature. In the years that followed, the tradition would continue to develop in ancient Egypt for devoting sculpted mythical guardians for sacred places. These guardians would be visualized as creatures with human faces and lion bodies. Such mythical beasts would be realized in varying forms and sizes throughout Egypt in association with tombs, but

none would ever be so vast or grand as that sculpted from the outcrop on the orders of Pharaoh Khafre. Approximately 70 feet tall and 240 feet in length from outstretched paws to folded haunches, the face of this beast was probably fashioned into a likeness of the pharaoh himself. A later Egyptologist would hypothesize that the intention might have been to present an image of the Pharaoh Khafre transformed into the god Horus, presenting the sun god Re with offerings.[76] The Sphinx also had inscriptions that refer to the Egyptian lion god Ruri, who the Egyptians believed guarded the entrance to the underworld. Lehner has gone so far as to note the astronomical alignment of the Sphinx and the pyramid of Khafre during equinoxes, explaining, “At the very same moment, the shadow of the Sphinx and the shadow of the pyramid, both symbols of the king, become merged silhouettes. The Sphinx itself, it seems, symbolized the pharaoh presenting offerings to the sun god in the court of the temple.” That said, as Egyptologist James Allen cautions, “The Egyptians didn’t write history, so we have no solid evidence for what its builders thought the Sphinx was....Certainly something divine, presumably the image of a king, but beyond that is anyone’s guess.”

It has been estimated that the monument was first sculpted around 2500 B.C., and to this day, the great stone beast guards the Giza necropolis at its eastern approach, with further pyramids and monuments since added to the landscape, including those of Khafre and his wives.[77] The Pharaoh Khafre did not immediately succeed his father Khufu, but rather began his own reign after the short rule of the Pharaoh Redjedef (or Djedefre), generally interpreted as Khafre’s elder brother. Pharaoh Khafre was the fourth pharaoh in the 4th dynasty, reigning between 2575 and 2465 B.C. He had at least four wives, according to the available written sources of his era, including the queen Meresankh III as well as his own sister Khamerernebti. He also had numerous children, at least 12 sons and 4 daughters, with known names including Nebemakhet, Duaenre, Niuserre, Khentetka, Menkaure, Sekhemkare, Nikaure, Ankhmare, Akhre, Iunmin, Iunre, Shepsetkau, Rekhetre and Hemetre, drawn from inscriptions from tombs and temple walls.[78]

Not a great deal is known about Khafre or his reign, but his own pyramid demonstrates his influence and power, since it is almost as grand in size as the vast Great Pyramid of Giza attributed to his father Pharaoh Khufu. Other

structures known to have been constructed during Khafre's reign include a valley temple linked to his pyramid via a causeway. The causeway was constructed from large blocks of granite, decorated along its extent by statuary carved from diorite quarried in the Nubian Desert.[79] In the later writings of the Greek historian Herodotus, Pharaoh Khafre was described as heretical, a cruel ruler who forced the Egyptian temples to stay closed after his father Pharaoh Khufu sealed them, but considering the gulf of time between Pharaoh Khafre's reign and the writings of Herodotus, however, those words must be considered for what they are, a secondary source passed down by word of mouth and fraught with possible errors and inconsistencies.[80]



Diorite statue of Khafre found in the Valley Temple

One of the overriding questions is who built the Sphinx. It was long assumed that laborers and/or slaves were used, but recent Egyptologists have unearthed the remains of a large settlement likely used to house the workers, and evidence from there suggests that the people working on the Sphinx were not from lower classes. In addition to the workers apparently being fed well, the settlement could hold up to 1500-2000 people at a time. Egyptologist Lehner has speculated that ordinary Egyptians did shifts of construction work, meaning that different people shuffled in and out of the area to work on the Sphinx. If so, this was a system similar to the one used over 4,000 years later by the Inca to build Machu Picchu.

The past was a vibrant, living landscape, and like the Great Pyramid of Giza, the Sphinx presumably ordered built by Khafre did not always appear then as it does now. The aesthetic of contemporary Egypt to the modern viewer is a familiar one in our current world. The crumbling sand blasted structures and raw sandstone blocks are an image tainted with nostalgia, evoking a poetic vision of the ancient past. The reality, however, is that the past was an environment with an aesthetic quite different from its archaeological remains. The broken nose of Khafre’s Sphinx face was whole and full at one point, marks of weathering were absent, the statue may once have been adorned with a beard, and there is even evidence to suggest the monument was once painted in full color.

Limestone fragments of the Sphinx's beard

A number of attempts have been made to reconstruct how the Great Sphinx of Giza would have looked just after its completion, but with such limited available data, these attempts are more guesswork than science. Nevertheless, reconstructions are important in demonstrating how different the landscape of the past really was. American Egyptologist Mark Lehner is one heritage practitioner who has utilized modern technology to shed new light on the past. After measuring and planning the physical Sphinx, drawing it from multiple angles and photographing it with a stereoscopic camera, Lehner digitized a three dimensional model of it with the assistance of Egyptologist

Ulrich Kapp, architect Thomas Jaggers and the German Archaeological Institute in Cairo. An image of Khafre was superimposed to fit over and fix the weatherworn and damaged face, the pedestal remnants between the outstretched legs of the Sphinx were altered to support a tall statue of Amenhotep II, and color was added across the surface of the Sphinx itself. [81] The available evidence for how the Sphinx may have been colored is very limited, with remnant residues of red pigment on the face, along with some traces of blue and yellow paint elsewhere. [82] While such reconstructions of the past may rely on a combination of guesswork and reason, the origin of the painted colors can at least be solved through the inscriptions of the past.

The colored facelift for the Sphinx occurred some 11 centuries after its initial construction, around 1400 B.C. The story of how and why this occurred was recorded on a granite stele placed between the outstretched paws of the Great Sphinx of Giza at the completion of the reconstruction works. The story recorded therein tells of the Pharaoh Thutmose IV, the son of Amenhotep II, who one day fell tired upon the Giza plateau and rested there, snoozing in the warm Egyptian afternoon sun. As he fell into a deep sleep, he saw in a dream the Sphinx come alive before him as a god, combining within it aspects of both the sun god Re and the god Horus. “You will be king,” the Sphinx, or god combination Horemakhet as Thutmose IV thought of him, spoke in the dream. “You, Thutmose, will be king, but only if you free me! Free me from the shifting sands that bury my body in their flow, then you shall be granted power!”[83] When he woke from the dream, Thutmose IV had taken the words to heart and set about excavating the deep drifts of sand that had at that time settled around the body of the Sphinx. In addition to that, he encased the monument in limestone blocks and had it painted in the colors red, blue and yellow. He also erected a statue of his father Amenhotep II between the paws of the great stone beast and built a mud brick enclosure wall around the Great Sphinx of Giza, shaped to resemble a cartouche. Just as the dream had prophesied, Thutmose IV did indeed become the next Pharaoh of Egypt.[84]

The story of Thutmose IV’s works was preserved on his stele, now known as the Dream Stele, part of which read, “... the royal son, Thothmos, being arrived, while walking at midday and seating himself under the shadow of this mighty god, was overcome by slumber and slept at the very moment

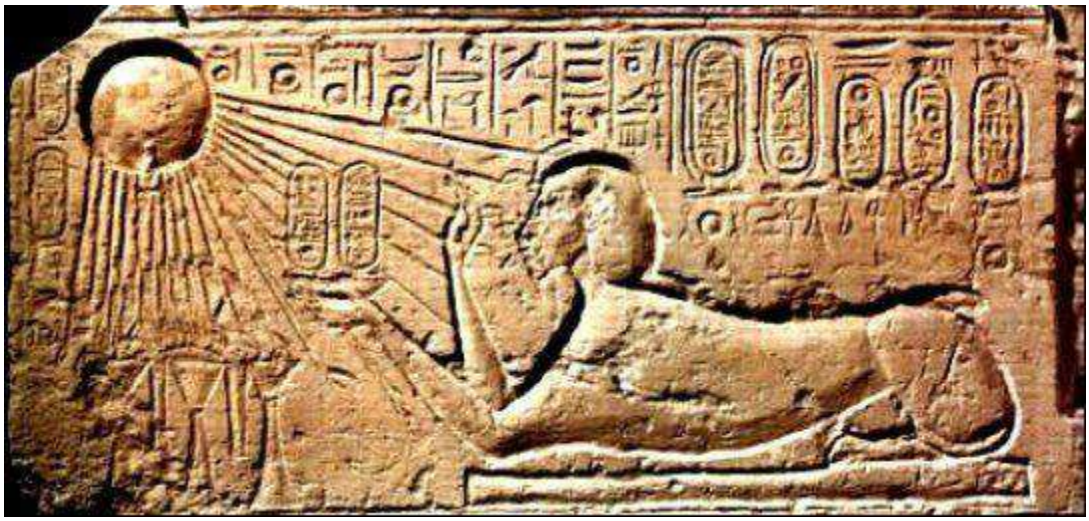
when Ra is at the summit. He found that the Majesty of this august god spoke to him with his own mouth, as a father speaks to his son, saying: Look upon me, contemplate me, O my son Thothmos; I am thy father, Harmakhis-Khopri-Ra-Tum; I bestow upon thee the sovereignty over my domain, the supremacy over the living ... Behold my actual condition that thou mayest protect all my perfect limbs. The sand of the desert whereon I am laid has covered me. Save me, causing all that is in my heart to be executed."

This was all added to further by other pharaohs who built a chapel around it, but in the end the sands returned, at times burying the paws and body of the Sphinx, at other times burying the vast monument completely. Nonetheless, the Sphinx peered out from the sands more often than not over the past few thousand years, sometimes appearing as just a head sticking out of the sand with its timeless eyes from the ancient past watching as the world continued to change around it. When early 20th century excavation finally succeeded in clearing away the sand from the base of the Sphinx, the *New York Times* itself reported, "The Sphinx has thus emerged into the landscape out of shadows of what seemed to be an impenetrable oblivion."

Chapter 3: Through the Ages

The building of a chapel around the stele of Thutmose IV has led Egyptologists to argue there may have been a Sphinx cult in existence during the Old Kingdom period of Egypt. While there is no specific evidence to support this, the presence of the chapel at the base of the Great Sphinx of Giza has suggested the possibility of religious use. There are, however, no records of priests servicing the Sphinx temple, which some have interpreted as never having been a completed structure. Either way, the monument itself was certainly popular during the Old Kingdom period, and other earlier structures were apparently harvested for use as raw material in the Sphinx's reconstruction and restoration. Ironically, the causeway of Khafre's pyramid was one casualty, as it was broken up to provide the stone to both repair the Sphinx and to build the temple in its honor.[85]

The image of the Sphinx even remained popular during the Amarna Period, a time when the traditional gods and religions of Egypt were forcibly abandoned on the orders of the Pharaoh Akhenaten in favor of worshipping the sun disc, interpreted by the Pharaoh as a god and dubbed with the name of Aten. Having associations with the sun may have been in the Sphinx's favor during this time, as not only was the great monument left unmolested but Pharaoh Akhenaten and his wife Nefertiti were themselves depicted as sphinxes in the decorations of a villa dating to the Amarna Period. Further repairs and renovations on both the Great Sphinx of Giza and its associated temples were carried out by later rulers Seti I and Ramesses II. Ramesses II even added base reliefs to the Sphinx temple depicting himself making offerings to the Great Sphinx. A ceremonial beard was also added to the face of the Sphinx, although it is uncertain when, since the addition of the beard ended up falling away later on.[86]



Aten shines light on a sphinx of Akhenaten

By the 26th Dynasty, the masonry of the Sphinx was noticeably crumbling away, and a major repair program saw limestone blocks encasing the structure once more. Even the Romans couldn't resist assisting the monument's preservation, adding a series of stones the size of contemporary bricks to the body of the Sphinx where severe erosion had set in. Use of soft white colored limestone for these repairs has meant that the repair material has fared worse over the passage of time than the original monument itself, but they can still be seen in some sections of the Sphinx to this day.

The story of the Sphinx through the ages is, therefore, one of repair and care from the many rulers of Egypt that followed its initial construction. Alas, not all time periods have been so kind, as in modern eras vandalism has joined the forces of erosion in the ongoing decay of this great monument. One of the most obvious, and thus most talked about, elements of vandalism on the Great Sphinx of Giza is the loss of its nose. Tour guides in Egypt often talk of Napoleon in this regard, regaling travelers with stories of his army firing their canons at the Sphinx and succeeding in dislodging its nose with one of their more accurate shots. While it is true that the armed forces of Napoleon's expedition did use the monument for some sessions of target practice, as did later armies such as Mameluk troops and the British Army, it is more generally accepted that the nose was lost due to the intentional efforts of a Muslim zealot sometime around 1378 A.D. The zealot was one Muhammad Sa'im al-Dahr, a Sufi Muslim who was living in Cairo at the

time. The story goes that he flew into a rage after witnessing peasants from Egypt presenting the Sphinx with offerings, asking the “talisman of the Nile” for its assistance in delivering a bountiful harvest. Full of righteous anger, he apparently vandalized the monument by destroying the Sphinx’s nose, irrevocably changing the appearance of the ancient statue forever.[87]

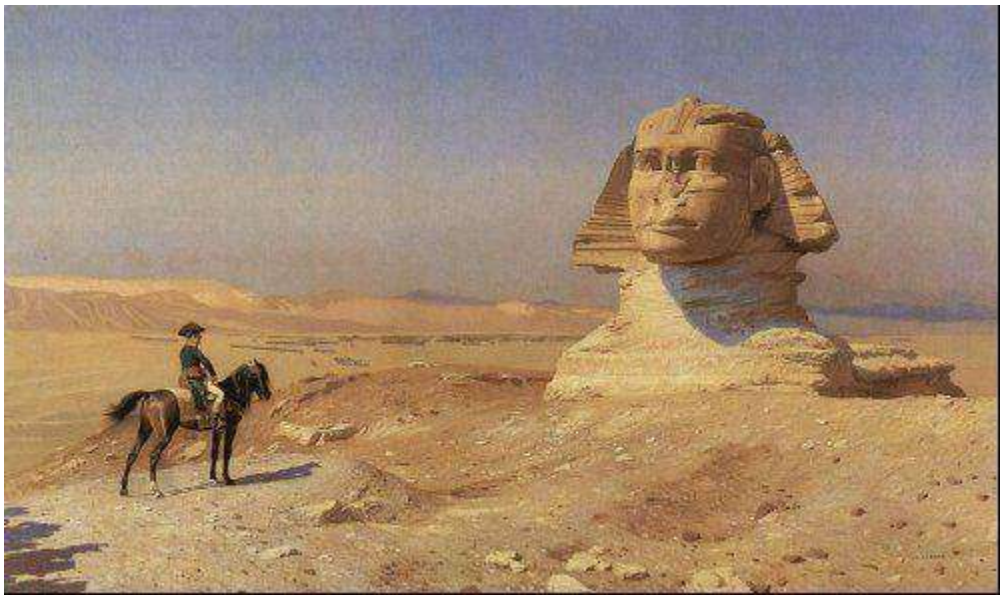
Al-Dahr was allegedly hanged for his vandalism, but further vandalisms were to follow in later years as well, as the search for treasure led many to deface the monument in various ways. The treasure hunting sea captain Giovanni Caviglia, for example, cleared all the sand from around the Sphinx’s chest in 1818, thus uncovering the long buried stele of Thutmose IV. This uncovering of the monument gave access to another treasure hunter in 1838, surveyor and engineer John Shae Perring, who was convinced that there was treasure hidden within the Sphinx itself and searched repeatedly for a way in. This included drilling holes into the body of the Sphinx. Although the holes themselves caused what appeared to be only limited destruction, their legacy was unfortunately more long term and widespread across the monument. The holes allowed for water to seep into the statue’s body during rain, which contributed to its ongoing destruction until the holes were eventually fixed in the 1920s.[88] Preservation would later come to be a major factor in the way the Sphinx was approached and understood, but such heritage concerns came much later, after science, Egyptology and archaeology came to define the way people saw the vast monuments of Egypt’s past.

A portrait of Perring

Chapter 4: Napoleon and the Science of Egyptology

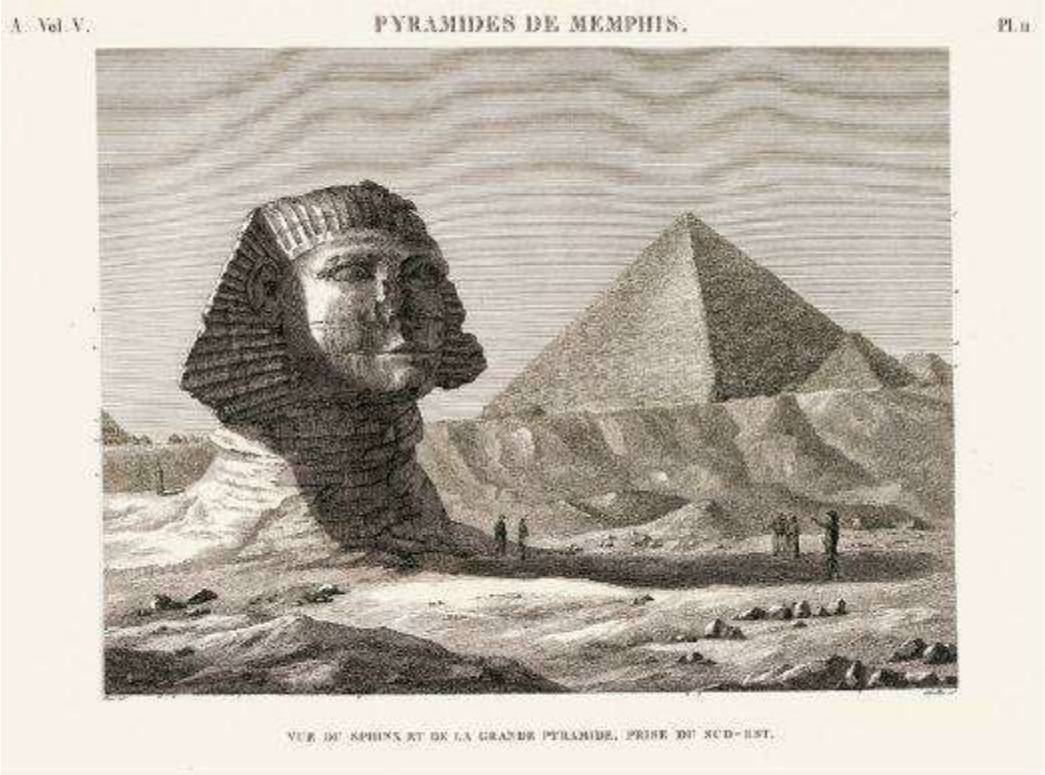
The development of Egyptology and the science of archaeology emerged out of a popular fascination with the relics of the past, part of a craze of romanticism that has at various times been applied to varying parts of the world and its mysterious past. Fascination with Egypt's antiquity took the form of treasure hunting before scientific curiosity and a respect for the artifacts of past cultures came to the forefront.

In the case of Egypt, these strands of interest have been traced back to one event: Napoleon's military expedition to Egypt in 1798. The French general was leading a campaign against Turkish forces then present in Egypt, bringing with him 34,000 troops to do so. Ironically, given his reputation for damaging the Sphinx, Napoleon also brought a team of 167 artists and scientists, and it was these men who led the effort to systematically record the remnant features of ancient Egypt. The troops were even utilized to clear sand away from around the base of the Sphinx, although less scientifically it is also reported that they used the ancient edifice for target practice prior to undertaking military maneuvers. Napoleon attempted to inspire his troops by referring to the ruins of the past surrounding them prior to their march into battle. He reportedly said, "Soldiers! From the summit of yonder pyramids forty centuries look down upon you."



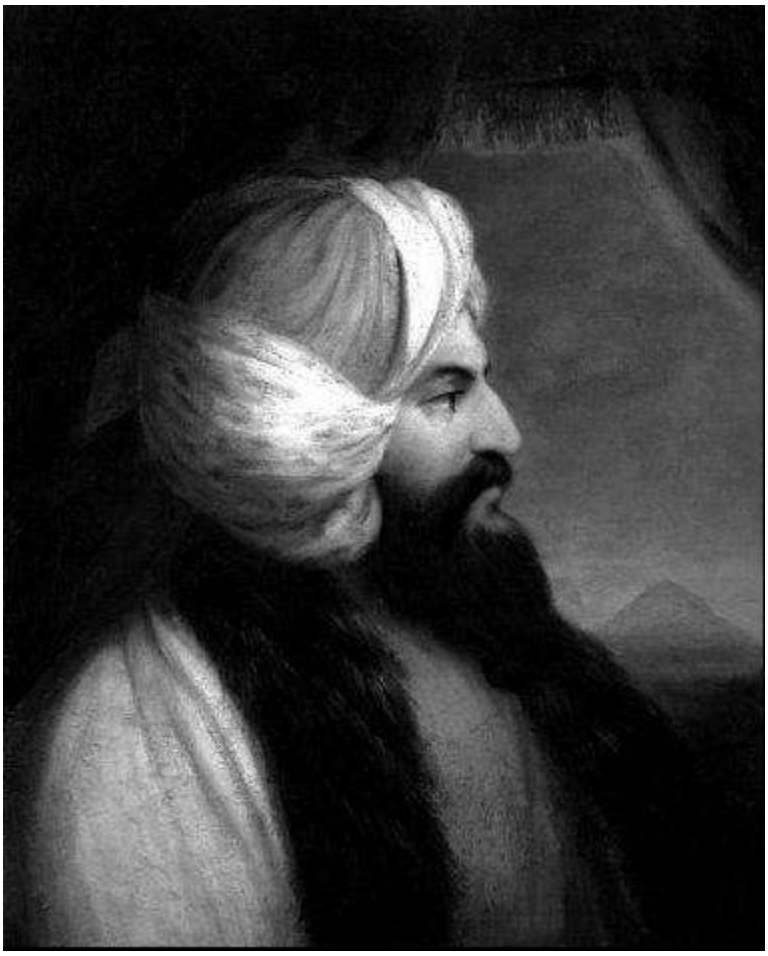
Jean-Léon Gérôme's famous painting, *Bonaparte Before the Sphinx* (1867-8)

Thanks to Admiral Horatio Nelson and British forces, Napoleon's military expedition was not a success for Napoleon, but the scientific outcome was nothing less than extraordinary, with a 24 volume text titled Description de l'Egypte being the result.[89] The scholarly collection of information was the first of its kind, and upon returning to Europe it was this that produced the interest of so many. Scholars, artists, antiquarians and scientists from across Europe and America began to descend upon Egypt as a result. Some came to solve its mysteries, while others came to plunder its past, but for all and sundry the Sphinx was there, watching and waiting as the world's attention became increasingly focused on Egypt.



Drawings of the Sphinx from Description de l’Egypte

Unfortunately, the earliest arrivals were often more concerned with treasure than knowledge. Characters like Giovanni Battista Belzoni were common, an Italian strongman who liaised with tomb robbers in order to gain access to the valuables of the past buried throughout Egypt. The majority of his experiences destroyed more than they illuminated, with him casually describing crushing sarcophagi in his stumbling rush through tombs, or even cooking roast chicken for dinner on a fire heated by fragments of broken sarcophagi, bones and other mummified remains.[90] Such misadventures were commonplace in a time period where excavation was more likely to be conducted by dynamite rather than brush and trowel. As a monument rather than a temple or tomb, the Great Sphinx of Giza remained relatively unscathed, but the occasional rumor that it housed a secret cache of treasure worked to its disadvantage, as per the drilling of holes in its body in 1838 by surveyor and engineer treasure-hunter John Shae Perring. It took time for scientific knowledge to presage treasure as the main motivation for study in Egypt, and even now tales of the treasure hunter era flavor contemporary understandings of archaeology and Egyptology.



A portrait of Giovanni Battista Belzoni

Archaeology, to take the term on its most commonly accepted level, is a discipline concerned with the past that achieves its outcomes through examination of artifacts associated with human manufacture or which carry evidence of human contact and interaction. While it is true that most archaeologists agree on these basic premises, the gradations of difference surrounding the key concepts are paramount. Archaeology is many things to many people and has a plethora of specialized subsets within it. Some examples include: Rescue Archaeology, Experimental Archaeology, Historical Archaeology, Industrial Archaeology, Prehistoric Archaeology, Processual Archaeology, Post-processual Archaeology, Theoretical Archaeology, Landscape Archaeology, Feminist Archaeology, Fringe Archaeology, Popular Archaeology, Consultant Archaeology and Biblical Archaeology, to name but a few key examples from a much longer list. Agendas, theories, methods and motivations will differ between the many archaeologists that take part in works crossing into these subset areas. An

Industrial archaeologist looks at different time periods than a Prehistoric archaeologist, and a Post-Processual archaeologist has a different set of values, ideals and intentions than a Processual archaeologist. Even within these so-called groups individuals will disagree with each other regarding the nature, intention, best working method and theoretical approach to be taken as an archaeologist. One archaeological theorist named Johnson stated that these groups are "actually a very diverse set of concerns and ideas that coalesced around certain slogans" and the blanket overarching term is not a referent for uniformity, but rather "conceals a great diversity of viewpoints and traditions".[91]

Further differences can be noted with different cultural backgrounds, as with French, German and Dutch teams, for example, each having their own cultural approaches towards excavation techniques and documentation, being the result of training undertaken from a particular cultural background. It is often the case in sciences that key concepts are agreed upon but most everything else is fair game for debate and discussion. For some, archaeology is a kind of storytelling,[92] for others it is detective work,[93] to some an art,[94] to some a science[95] and to some merely a science of rubbish.[96] While there are those who have claimed in the past that archaeology is a subset of other disciplines, such as history[97] or anthropology,[98] such claims carry little weight in contemporary times and owe more to the origins of the discipline than to what it has since become. Archaeology is no more a handmaiden to history[99] than it is a treasure hunting adventure,[100] although the echoes of these early avenues and instances still color the discipline as it continues to develop. Archaeologist Chang stated that "as a tool archaeology serves many masters"[101] and it is important to remember that while one archaeologist may focus on reconstructing human actions of the past,[102] another may be more interested in large scale, long term material change traced through monuments, structures and settlement patterns.[103] Archaeology allows for multiple approaches, and considering the differing finds, conditions, challenges and contexts encountered on archaeology sites around the world different approaches, theories and intentions are very appropriate.

As the archaeologist Knudson stated, "archaeology is a complex, scientific discipline which encompasses many levels of inquiry and many varied goals".[104] As to the more philosophical questions of what archaeology is

and does, each archaeologist will have their own point of view. Joukowsky is more personal when discussing the need for archaeology, stating: “the essence of archaeology is that it makes our world much more meaningful… Archaeology deepens our understanding of humanity and society… it uplifts us by satisfying our basic desire and need to know who we are”.[105] This deals with the philosophy of why there is a need for archaeology and gives insight into Joukowsky’s own personal motivations and inspirations as an archaeologist. Fletcher and Bailey, on the other hand, look at the specific strengths of archaeology when defining their approaches, examining what archaeology can do that no other discipline can. Artifacts of great variety abound throughout the many environments of earth, some as large as 100 square kilometres, some as small as a fraction of a millimetre, some millions of years old, others as recent as yesterday. Fletcher and Bailey both point out that they form a consistent record of long-term human interaction with material, something that archaeology is uniquely positioned to effectively examine.[106] How that record is then used to reason about the past is a matter for ongoing debate and conjecture.

Although it is generally accepted in archaeology and Egyptology that Khafre was the pharaoh responsible for the construction of the Great Sphinx of Giza, there is still some ongoing debate about the matter. The evidence for Khafre consists of the proximity of his own pyramid to the monument, as well as the facial similarities of the Sphinx to other representations of Khafre from Egypt’s archaeological record. The so-called dream stele of Thutmose IV has also been cited as referring to Khafre, but damage to the inscription means that this is also open to debate. It was archaeologist Thomas Young who noted Khaf written in hieroglyphs within a damaged cartouche, the design of which is usually utilized to denote a royal name, but by the time the stele was re-examined in 1925, the Khaf reference had been destroyed due to further flaking. Counter evidence to the Khafre hypothesis include another inscription, called the Inventory Stela, describing Khufu discovering the Sphinx already buried in sand during his era. This would mean that the Sphinx is even centuries older than previously thought, but the Inventory Stela dates to somewhere between 678 and 525 B.C., so the inscription has been interpreted as a revisionist story from the Late Period, making it an example of the propaganda of the past, with the ancient Egyptians rewriting their own already ancient history . Writer Colin Reader weighed the evidence

and concluded “the execution of the Inventory Stela is poor and the names used for the various deities mentioned in the text are clearly those employed during the Late Period… [it is] a fraudulent attempt on the part of the Late Period Egyptians to re-discover a past which was, even then, of great antiquity.”[107]

Archaeologist Rainer Stadelmann, who was once the director of the German Archaeological Institute in Cairo, stated the case against Khafre as the builder of the Sphinx through examination of the monument’s iconography and surrounding architecture. Khafre's Causeway, he argued, was built around a pre-existing structure, with Stadelmann arguing based on location that the pre-existing structure was the Great Sphinx of Giza itself. Therefore, he reasoned, if the monument predated Khafre, its iconography would be indicative of an earlier period. Stadelmann argued this different iconography included the headdress or nemes of the Sphinx, as well as the one-time beard that has long since been detached from the monument along with its nose. The iconography of both beard and headdress, Stadelmann argued, were stylistically similar to the era of Pharaoh Khufu, reigning between 2589 and 2566 BCE.[108] As the builder of the Great Pyramid of Giza and father to Khafre, Khufu is a popular choice for alternate interpretations of the pharaoh who oversaw the creation of the Sphinx.

With that said, Stadelmann’s argument of the causeway being built around an existing structure does not take into account the fact that the outcrop the Sphinx was carved from would have been a natural feature present in the landscape long before it was shaped into the likeness of the Sphinx. In other words, the causeway could have been constructed even before the Sphinx was finished, thereby making it possible that Khafre was responsible for both the Sphinx and the causeway. Despite the dissenting views, current consensus among Egyptologists is that Khafre was the pharaoh who instigated the sculpting of the Sphinx monument from a natural outcrop, left over following the completion of his father’s Great Pyramid of Giza. Although this position may change if further evidence is acquired, it remains the most commonly accepted version of the past at this time.

Chapter 5: The Sphinx and Pop Culture

In addition to the literature of archaeology, there is another arena where the Sphinx continues to loom large, inspiring a vast array of different stories, images and ideas. That arena is, of course, popular culture, where the story of the Sphinx continues to both assert and reshape itself, much as it once did in Greek mythology so long ago. Public fascination with Egypt and the mysteries of its past have led to the development of a variety of novels, films, games and comics which explore the mythological and fictional aspects of that history. As a primary figure within the landscape of the past, the Sphinx has become a focal point for much of these explorations. Much as Greek mythology took the image of the Sphinx to represent the old world in the tale of Oedipus, so contemporary fiction wraps notions of magic, evil curses and forgotten knowledge around that same image, juxtaposing the modern world against the otherness of Egypt's fictional past.

One example of this is the short story "Under the Pyramids", published in the pulp magazine *Weird Tales* in February 1924. The story outline came from none other than Harry Houdini, who pitched an allegedly true tale of his own encounter with strange forces in Egypt to magazine editor J. C. Henneberger. Attracted to the idea of attaching Houdini's name to his magazine, Henneberger readily agreed and quickly commissioned a regular contributor to ghost write the story. That writer was none other than the iconic fantasy and horror author H. P. Lovecraft, whose own Cthulu tales of elder gods threatening to wake from an other-dimensional slumber and return to this Earth have been disturbing readers worldwide for decades. Lovecraft chose to write the short story in the first person, presenting it as though Houdini himself were telling the tale. Indeed, some published versions of the story did not include a credit for Lovecraft, choosing instead to present the fiction as a true event in the life of the great escape artist, written by him alone.

The story is set in 1910 and tells of Houdini encountering a tour guide with a striking resemblance to one of the ancient pharaohs of Egypt. The guide kidnaps Houdini and takes him to the Great Sphinx of Giza, where the escape artist is thrown into a deep hole located nearby the famous monument. Luckily Houdini is made of stern stuff and is able to escape from this

predicament through the industrious use of his techniques in escapology. However, as he is making his way through darkened passages, searching for the way out, he comes upon a vast cavern, decorated as a place of ancient ceremony and possibly as one of sacrifice, with Houdini himself having been the next intended victim. For there, deep beneath the ground, is a vast and terrible creature, the real beast that the Sphinx monument was based upon, still alive and hungry in the dark beneath the hot sands of the Egyptian desert. [109] Lovecraft's telling of the tale places it in the context of his Cthulu stories, giving it a dark and mythic resonance which Houdini apparently enjoyed, collaborating with Lovecraft on further projects thereafter. The mysteries of ancient Egypt, such a source of fascination to the general public, are answered here in fiction as the Sphinx is given a living counterpart, a disturbing deity of immense power, somehow darker and more disturbing than the one that Oedipus so famously defeated through his intellect. Other writers have also written the Sphinx as a living creature, but not always with the sense of horror and darkness that Lovecraft preferred.

One writer who wrote about the Sphinx with humor was British author Terry Pratchett, who created his own version of ancient Egypt within a fantasy setting known as Discworld. The Discworld was a flat land in the shape of a disc, supported on the backs of giant elephants who themselves were standing on the shell of a vast turtle that was swimming through space. The inhabitants of the Discworld were a motley assortment of wizards, witches and barbarians in a comedy mash-up of classic fantasy tales. Within that invented world was also Pratchett's own version of Egypt, where he was able to parody various aspects both of Egyptian history and, more to the point, popular culture interpretations of it.

In the Pratchett book *Pyramids*, the story's hero, pharaoh and sometime assassin Teppic, faces off against the Sphinx in a separate plane of reality. As in the mythological story of Oedipus the Sphinx delivers its challenge, asking the famous riddle: "What has four legs in the morning, two legs in the middle of the day, and three legs in the evening?" Faced with the prospect of being eaten if he answers incorrectly, yet not knowing the answer, Teppic instead questions the logic of the riddle itself. "Is there internal consistency within the metaphor?" he asks of the Sphinx, questioning if all of the stated elements really did happen to one individual in the space of one day. Once the sphinx

admits the allegorical nature of the challenge, Teppic presses on, pointing out logical problems. If a human lifespan, roughly estimated to average to about 70 years, is compressed to the period of a single day, then the amount of time spent as a baby crawling on all fours would only be twenty minutes rather than the entirety of the morning. Besides which, that period in a 24 hour day is actually just after midnight and can hardly be referred to as morning anyway. Besides, not all elderly people require walking sticks, while some might need more than one in order to help them get around.

Teppic subsequently offers to help the Sphinx rewrite the riddle in order to increase the allegorical accuracy of it. For example, he suggests, instead of the "three legs in the evening" bit, it would surely be better to phrase it as: "after supper-time it continues to walk on two legs or with any prosthetic aids of its choice". Of course, by the time the logic of riddle has been exposed, Teppic has learned the answer and is able to provide it and go on past the monstrous Sphinx unscathed.[110]

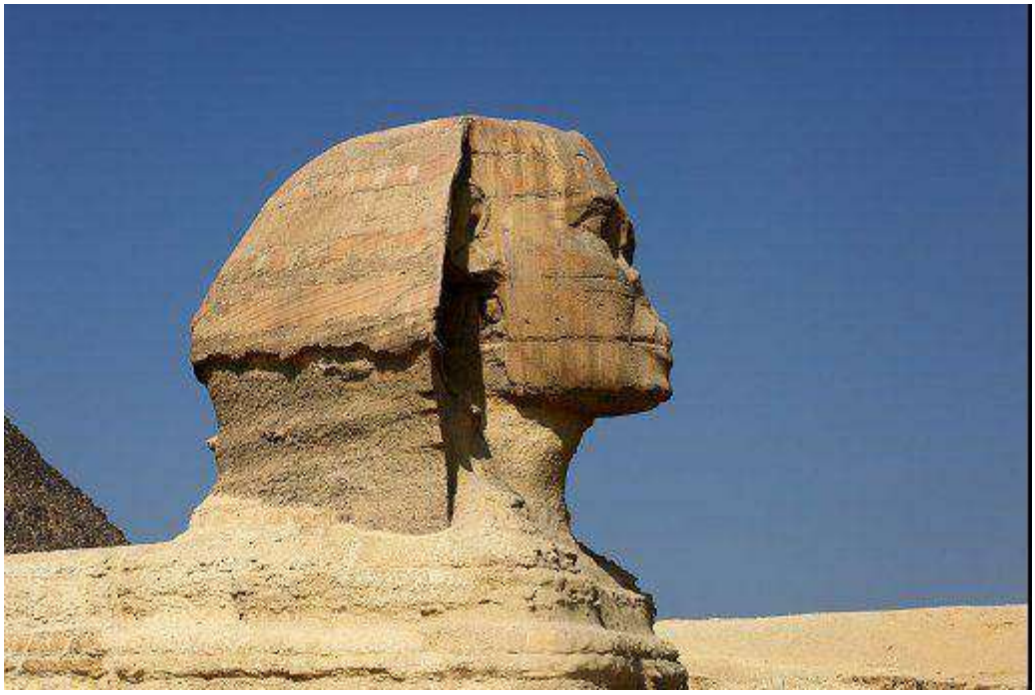
The use of the riddle from Greek mythology in the context of a fictional story soaked in Egyptian imagery demonstrates how much a part of the character of the Sphinx that mythological reference has now become. From the perspective of the present, the various accumulations of history have attached themselves to the image of the Sphinx, shaping its mythology in ways that make contemporary understandings of it into something that would have been completely alien to the people that built the monument so many years ago.

Another series that plays with the established facts of history is Asterix, a French comic book series set in the year 50 B.C., just as the entirety of Gaul has been conquered by Julius Caesar. All of it, that is, except for one small village, where the local druid brews a magic potion that endows the drinker with superhuman strength. The main characters, Asterix, his best friend Obelix and pet dog Dogmatix, travel throughout the conquered Roman empire meeting various historical figures and creating mayhem along the way. Their visit to Egypt, for example, in the story 'Asterix and Cleopatra', was a good excuse to explain just what happened to the Sphinx's nose, with Obelix accidentally knocking it off while climbing up the Sphinx to get a better view of the area.[111] This is typical of the fun the series has with history, which is certainly successful at getting younger readers interested in

learning more about the past; any historical knowledge based on Asterix in isolation however is bound to be misguided at best. This form of playfulness with the mysteries of the Sphinx is not uncommon in fiction, with various versions presented of how it lost its nose and whose face the monument was based upon. In the British science fiction series *Doctor Who*, for example, the time travelling Doctor discovers that his companion Peri has convinced the ancient Egyptians to use an image of Elvis as their basis for the Sphinx in the story "The Eye of the Scorpion".[112]

Other aspects of ancient Egypt continue to flavor the Hollywood approach to retelling the past in films such as *The Mummy*, a 1932 horror movie[113] with a family friendly franchise remake version from 1999.[114] Both films and the multitude of others like them utilize notions of ancient curses and reanimated corpses wrapped in peeling linen bandages to intrigue a modern audience already fascinated with the unknown mysteries of the ancient past. As a symbol the Great Sphinx of Giza epitomises this fascination and is a recurring icon of it. Fictional representations of the modern world have continued what the ancient Greeks began with their own mythological reinterpretation of the creature represented by the ancient monument. It is not inconceivable to guess that this process of reinterpretation and reinvention will continue long into the future, but while the verbal meaning continues to shift, filtered through the vision of changing audiences over time, the monument that inspired all the stories stands constant, worn by time but otherwise unyielding as the many interpretations of it wash like water across its heavy stone features.

Chapter 6: Tourism



The Sphinx in 2010

The Great Sphinx of Giza is a powerful image of the ancient world, an enduring symbol of contemporary Egypt, and one of the cornerstones drawing a range of modern travelers from across the globe to indulge in the tourist experience. Of course, it is not just the Sphinx that tourists like to visit, since they can take in the surrounding temples as well as the pyramids that dominate the Cairo skyline, but the Sphinx itself is a central icon and part of the panorama of spectacle that attracts so many. They come by bus and cab, usually making the trip out from nearby Cairo to Giza. Some may even choose to walk the distance if they are fit enough and wanting to add a pilgrimage feel to their travels. Other visitors travel with organized tours, making their way amongst the lines of open-mouthed and wide-eyed viewers snaking through the monuments and back again, shepherded by protective guides who help them find their way, avoid souvenir sellers and converse in the local language.

The tradition of tourism in Egypt has a long history, and the ancient world had its fair share of travelers as well, many of whom marveled at the icons of a past that was already ancient even to them. This tradition first started around the 4th century B.C. after the Greek culture spread across what was

then the known world. Civilizations previously controlled by the Persians, Babylonians and Egyptians became more readily accessible to Hellenistic travellers, leading to the compilation of a definitive lists of sights that had captivated those who had gone there before them. There were multiple lists of must-see items compiled by such travelers as the historian Herodotus, the epigrammist Antipater of Sidon, and the architect Callimachus of Cyrene, and the lists of structures and landmarks were utilized as guidebooks for those tourists who followed.

Over time, the varying documents formed one compilation comprising what mathematician Philo of Byzantium called The Seven Sights of the World, better known now as the Seven Wonders of the Ancient World. These wonders comprised the Hanging Gardens of Babylon, the Temple of Artemis at Ephesus, the Statue of Zeus at Olympia, the Colossus of Rhodes, the Mausoleum at Halicarnassus, the Lighthouse of Alexandria and the Great Pyramid of Giza.[115] Of all these ancient wonders, only one remains intact, the Great Pyramid of Giza, still standing today and continuing to draw further tourists even after all these centuries.

The Great Sphinx of Giza is not on the list of seven wonders, and the absence of such a prominent feature has sparked questions for many. The Greek historian Herodotus records many details about the pyramids and temples of Egypt but makes no mention of the Sphinx at all in his voluminous works.[116] This has led some to hypothesize that the Sphinx may well have been buried in drifts of sand during the 5th century B.C., which would mean that it would not have featured in the collective memory of those ancient tour groups.[117] However, later commentators from antiquity were aware of its presence. One was the Roman Gaius Plinius Secundus, more popularly known as Pliny the Elder, who lived from 23-79 A.D. A writer, philosopher, military commander, naturalist and traveler, Pliny the Elder wrote down his own observations of the Great Sphinx of Giza during a visit to Egypt and referred to the monument as representing a divinity. He also made reference to the structure as a tomb, citing it as being the final resting place of King Harmais, who Pliny described as being buried within it. Although Pliny the Elder’s knowledge in this regard was erroneous and was no doubt composed of stories formed from the fragmented memories of the populace, his observations at least suggest that the Sphinx made a dramatic emergence from the sands sometime after the 5th century B.C.[118]

In contemporary times, many tour companies and hotels have styled themselves after the vast statue, both by name and design. It is far from uncommon to book a trip with Sphinx Travel or Sphinx Tours, or to stay at Mercure Cairo le Sphinx, the Sofitel Le Sphinx, Sphinx Guest House or the Sphinx Resort Hotel. The iconography associated with the Sphinx has firmly affixed itself to the marketing of Egypt and is a central feature of the tourist images, journals and blogs that result from the voluminous number of visitors each year. More than 12.8 million tourists went to Egypt in 2008, providing nearly $11 billion U.S. dollars in revenue, and in the year 2010 it was estimated that over 14 million tourists visited Cairo. However, the numbers dropped to nine million in 2011 due to uprisings across the region and remained low after that due to ongoing political uncertainty. Nevertheless, despite these issues, the flow of tourism has never stopped. Its importance to the economy of Egypt is without question, with estimates on tourist receipts calculated as fluctuating between $2,942,000,000 in 1998 up to $13,633,000,000 in 2010. It has been estimated that the tourist sector employs approximately 12% of the overall Egyptian workforce.[119]

However, the importance of tourism for economic benefit has to be balanced against the damage that associated urban growth and development does to the monuments of the past that the people want so desperately to see. In 2008, for example, there was enough concern about the rising water table beneath the Sphinx to establish an in-depth study of the situation. Three months of comprehensive ecological and geophysical studies by the Archaeological Engineering Centre of Cairo and Ain Shams universities determined that inadequate drainage systems in the suburb of Nazlet Al-Semman were causing the water table to rise and salt to accumulate on the surface of the ground facing the Sphinx's Valley Temple. The encroaching suburbs getting closer and closer to the Sphinx and pyramids were a direct result of growing tourist numbers causing a need for growth and expansion.[120] Some of the developments that led to the rising water included the public gardens and residential area of Hadaaq Al-Ahram, along with the golf course at the Mena House Hotel. The solution was the installation of a pumping system to reduce the high rate of subterranean water accumulation through 18 water pump machines across the plateau. It was estimated in 2012 that these machines were pumping out 26,000 cubic metres of water per day at a rate of 1,100 cubic metres of water every hour.[121]

The importance of the Great Sphinx of Giza ensures it will be protected and preserved for as long as possible, and it has already stood the test of time far longer than many other monuments and artifacts of the ancient world. As Lehner put it, “The Sphinx is the oldest patient in the world.” Indeed, it has pervaded history, legend and popular culture, and what once was modern has since become ancient beneath its gaze. Perhaps even the modern world will one day look ancient to the Great Sphinx of Giza, one of a handful of constants within an ever changing landscape. But what is certain is that tourists will continue traveling to see it and people will continue to debate its history and origins.

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